2017-1179

United States Court of Appeals for the Federal Circuit

MUNCHKIN, INC.,

Appellant,

v.

LUV N' CARE, LTD.,

Appellee.

Appeal from the United States Patent and Trademark Office, Patent Trial and Appeal Board, in Inter Partes Review No. IPR2015-00872

BRIEF FOR APPELLANT

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March 20, 2017

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CERTIFICATE OF INTEREST

Counsel for the Appellant certifies the following:

1. The full name of every party represented by the undersigned counsel in this case is: Munchkin, Inc.

2. Munchkin, Inc. is the real party in interest.

3. Munchkin, Inc. has no parent company, and no publicly held corporation owns 10% or more of its stock.

4. The names of the law firms and the partners and associates that have appeared for Munchkin, Inc. before the Patent Trial and Appeal Board or are expected to appear for Munchkin, Inc. in this Court are: A. Justin Poplin, R. Cameron Garrison, Travis W. McCallon, Hissan Anis, and Anna M. Quinn, all of Lathrop & Gage, LLP, Kansas City, Missouri.

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STATEMENT OF RELATED CASES

No appeal in or from the same civil action or tribunal was previously before this or any other appellate court. U.S. Patent No. 8,739,993 is at issue in the action entitled *Munchkin, Inc. v. Luv N' Care, Ltd and Admar Intl., Inc.*, Case No. 2:13-cv-06787-JEM (C.D. Cal. filed Sept. 16, 2013), which is currently stayed pending final resolution of the *inter partes* review of the patent here.

JURISDICTIONAL STATEMENT

Jurisdiction over Munchkin, Inc.'s ("Munchkin") appeal is proper under 28 U.S.C. § 1295(a)(4)(A). On September 15, 2016, the Patent Trial and Appeal Board (the "Board") issued its Final Written Decision in *Inter Partes* Review of U.S. Patent No. 8,739,993 (the "'993 Patent"). Munchkin timely filed its notice of appeal on November 8, 2016. *See* Fed. Cir. R. 15; 37 C.F.R. § 90.3(a)(1); (Fed. Cir. Dkt. No. 1)

STATEMENT OF THE ISSUES

1. The claims of the '993 Patent recite—and the specification describes, and the patent figures uniformly depict—a container with a layered configuration, where a snap projection sits on top of a platform, and the platform sits on top of the shoulder of the container. Did the Board err in construing the "platform" and "shoulder" limitations to allow for the platform to sit *adjacent to* the shoulder, and between the shoulder and the neck of the container?

2. Munchkin conditionally amended independent claim 1 of the '993 Patent to incorporate a district court's construction of the "platform" and "shoulder" limitations. Did the Board err in finding that the "platform" amendment broadened the claim, when the Board diverged

from the district court's construction and more narrowly construed original claim 1 to be limited to an embodiment claimed only in dependent claim 3?

STATEMENT OF THE CASE

Luv N' Care, Ltd. ("LNC") filed a petition for *inter partes* review of claims 1–7 of the '993 Patent on March 11, 2015, and Munchkin filed a preliminary response on June 23, 2015. (Appx50, Appx185). The Board instituted *inter partes* review on September 18, 2015. (Appx206). Munchkin filed a post-institution response, as well as a conditional motion to amend requesting to substitute claim 1 with amended claim 8, on December 2, 2015. (Appx241, Appx269). On February 16, 2016, LNC replied to Munchkin's post-institution response and opposed Munchkin's conditional motion to amend. (Appx348). The Board held an oral hearing on May 10, 2016. (Appx644). In a Final Written Decision dated September 15, 2016, the Board found claims 1–7 unpatentable. (Appx1–15). It also found that substitute claim 8 broadened the scope of original claim 1 and was therefore unpatentable, and thus denied Munchkin's motion to amend. (Appx15–20). Munchkin timely filed its notice of appeal on November 8, 2016. (Fed. Cir. Dkt. No. 1).

STATEMENT OF THE FACTS

Munchkin is a leading developer of innovative and modern products for babies and children. It is the owner of the '993 Patent, which was the subject of the *inter partes* review proceeding that gave rise to this appeal, as discussed in more detail below.

A. The '993 Patent claims a novel container with a unique layered shoulder-platform-snap projection configuration.

The '993 Patent issued on June 3, 2014,[1] and is directed to a container to be used with a spillproof container assembly, such as those that can be used as training cups for toddlers. (Appx45, at 1:12-15). The claimed container is operable to provide "guidance to consumers as to the proper degree of tightening between the lid and the container body." (Appx45, at 2:21-24). It does so through a structure that provides "audible feedback when the lid body is screwed onto the container body with a predetermined tightness." (Appx46, at 3:14-16).

More specifically, the claimed container comprises a unique configuration that allows for a tab on a container lid to engage a "snap projection" on the container until the lower portion of the tab cams itself

[1] There is no dispute that the '993 Patent is a pre-AIA patent.

over the upper surface of the snap projection. (Appx48, at 8:3-27). As the tab clears the snap projection, the tab "will resonate within the acoustic waveguide" and be "heard by a consumer as a distinctive clicking sound." (Appx48, at 8:29-35). This serves to prevent leakage of fluid and the undesirable entry of air into the container, while preserving the integrity of the container's threads and sealing surfaces. (*See* Appx45, at 1:51-56). At the same time, it is an object of the invention to provide a container "that is constructed and arranged to optimize grippability for small children and caregivers, as well as promot[e] optimum orientation of the container assembly by a small child during use." (Appx45, at 2:25-29).

In order to both allow for the desired audible feedback and promote grippability, the claimed container utilizes a unique layered configuration, where a "snap projection" is located on a "platform," which in turn is located on a "shoulder." Independent claim 1 (claims 2- 7 are dependent claims) recites this structure clearly:

> 1. A container for a spillproof drinking assembly, comprising:
>
> a container body having a first upper open end and a lower closed end;
>
> a neck extending cylindrically outward and away from the first upper end of the container body, the neck includ-

> ing at least one threaded fastener on an outer surface of the neck to receive a cap,
>
> wherein an outer surface of an upper end of the container body extends below the neck radially outward to define a shoulder;
>
> a platform is disposed on the shoulder; and
>
> a snap projection is disposed on the platform, wherein the snap projection extends upward, away from the platform to a predetermined height.

(Appx49, at 10:6-21).

Notably, the application giving rise to the '993 Patent expressly identified ten embodiments, represented by various figures, with the preferred embodiment corresponding to Figures 1–11. (Appx1119–1121, Appx46, at 3:42–4:27). The examiner issued a requirement for restriction/election, noting that "NO Claim(s) is/are believed to be generic" to all of the embodiments, which it categorized into six separate species. (Appx1058–1059). Species I corresponded to Figures 1–11, the invention's preferred embodiment. (Appx1058, Appx46, at 3:42-67). The applicant subsequently responded to the election requirement, stating that "Applicant elects Species 1: Figures 1–11" and "Claims 1-32 are directed to this species." (Appx1054).

In addition, the original application claimed and described one or more "wings," and did not include any recitations of a "shoulder."

(Appx1132–1136). After a final rejection of the claims, however, the applicant and examiner conducted an interview during which "Applicant was advised to further amend the claims to impart further structure for the wings of the container." (Appx968). Thereafter, the applicant amended certain claims to recite a "shoulder," and added new claims that replaced the "wing" with a "shoulder." (Appx931–942). The examiner found certain of the applicant's new claims reciting a "shoulder" in place of a "wing" allowable, if rewritten in independent form. (Appx904, Appx920). The applicant rewrote the claims accordingly, and the claims issued with a "shoulder" limitation rather than a "wing" limitation. (Appx865–868, Appx846–848). The specification continues to describe "wings" as the structure representing the claimed "shoulder," however. (*See e.g.* Appx45–49).

Thus, in explaining the layered configuration of the container, the specification describes a "cup wing," identified by numbers 24 and 26 in the figures, which "protrudes radially outwardly from a first side of the cup main body," and "enables a consumer to grip and exert torque on the cup body." (Appx47, at 5:12-16). "[P]latform 68" is "located on an upper portion of the respective cup wing 24, 26." (Appx47, at 6:13-14).

And "the snap projection is embodied as a snap ridge 66 that projects upwardly from the raised platform 68 that is located at the uppermost portion of the respective cup wing 24, 26." (Appx48, at 8:8-10). This layered wing-platform-snap projection configuration described in the specification precisely tracks the shoulder-platform-snap projection configuration of claim 1.

Figure 2 of the patent clearly depicts the wings at 24 and 26, while Figure 11 depicts the layered configuration as described in both the claims and the specification, where the wing (or shoulder) is located at 24, the platform is located on the shoulder/wing at 68, and the snap projection is located on the platform at 66:

The ‘993 Patent

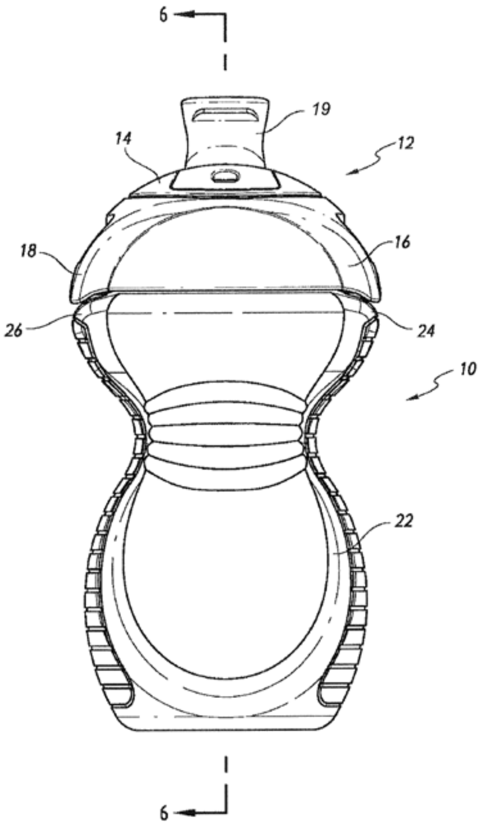


FIG. 2

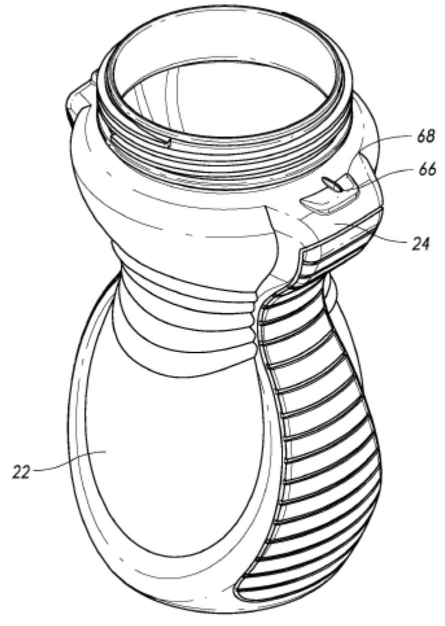


FIG. 11

(*See* Appx27, Appx35, Appx47, at 5:21-23, 6:18-21, Appx48, at 8:7-10).

B. A United States District Court properly construed the claims of the ‘993 Patent prior to the Board’s institution of *inter partes* review.

As noted above, the parties are currently involved in parallel litigation involving the ‘993 Patent, in a case entitled *Munchkin, Inc. v. Luv N’ Care, Ltd and Admar Intl., Inc.*, Case No. 2:13-cv-06787-JEM (C.D. Cal. filed Sept. 16, 2013). Before the district court stayed that case pending resolution of this *inter partes* review—indeed, before the

Board instituted review at all—the court issued an order construing the claims of the '993 Patent. Two of the most pertinent phrases at issue in the court's claim construction order were the "shoulder" and "platform" limitations, represented by the following claim phrases, respectively: (an outer surface of an upper end of the container body) "extends below the neck radially outward to define a shoulder"; and "a platform is disposed on the shoulder." (*See* Appx3009–3011, Appx3014–3015).

Regarding the "shoulder" limitation, Munchkin argued that the shoulder must extend from (or join) the neck of the container and that, consistent with ordinary meaning and the relevant specification figures, it must also consist of a downward-sloping, rounded surface. It therefore proposed that "extends below the neck radially outward to define a shoulder" should mean "an outer surface of an upper end of the container body extends down from the neck radially outward to define an outwardly-extending area having a top surface that slopes downwardly in a non-concave manner." (Appx1725).

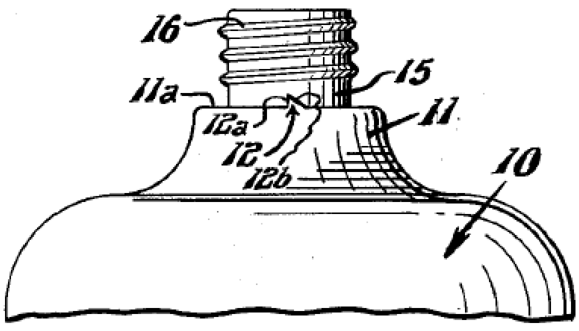
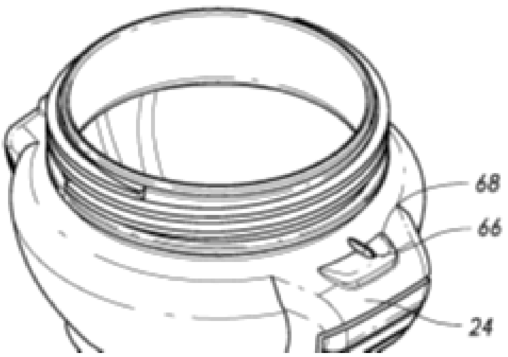
Regarding the "platform" limitation, Munchkin argued that the platform is distinct from the top of the shoulder itself, and that it serves to prop up the contour of the downward-sloping shoulder, to allow for the placement of the snap projection. As such, Munchkin proposed that "a platform is disposed on the shoulder" should mean "a structural feature distinct from the shoulder and the container body and disposed on the shoulder to change the contour of the shoulder." (Appx1725).

LNC argued that the shoulder does not extend to or from the container neck, and that the shoulder must be flat. (Appx1783). It also argued that the platform must be flat, and that the platform is not only "on" but can also be "above" the shoulder. (Appx1785).

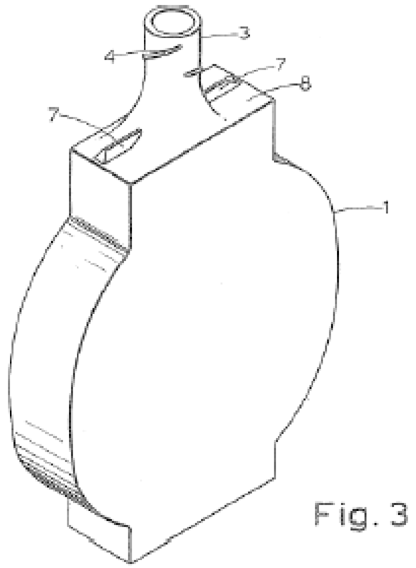
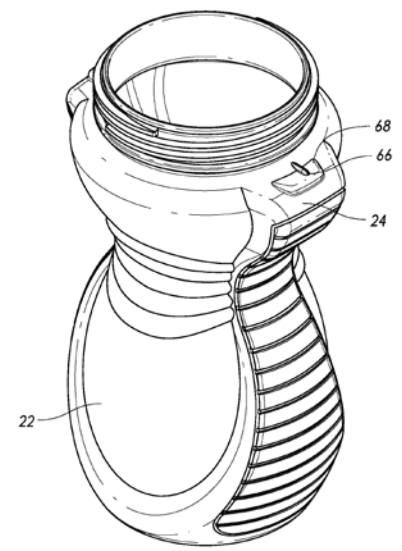
The court rejected all of LNC's arguments on these issues, and adopted Munchkin's constructions as proposed. (*See* Appx3001–3018). In doing so, it found that "the shoulder is identified in the specification as one of the cup wings." (Appx3009). It also "reject[ed] LNC's argument that the shoulder is not located where the neck joins the body." (Appx3011, at n. 3). Unlike LNC's proposed constructions, the court's constructions are consistent with the layered shoulder/wing-platform-snap projection structure described in the specification and depicted in all of the pertinent figures of the patent, including Figure 11 noted above. In fact, the court in its order found that LNC's proposed constructions "exclude[] all embodiments in the Patent." (Appx3011).

C. The Board instituted review based upon two references that do not disclose a layered shoulder-platform-snap projection configuration.

After the district court construed the '993 Patent, the Board instituted review of the patent on the basis of two prior art references: U.S. Patent No. 3,101,856 ("Whiteman") and U.S. Patent No. 4,230,232 ("Atkins"). Whiteman discloses a standard bottle that lacks the layered shoulder-platform-snap projection structure of the '993 Patent in favor of a configuration that, at most, places a platform adjacent to a shoulder—and between the shoulder and the neck—as Figure 1 of Whiteman makes clear:

<table>
<tr><th>U.S. Patent 3,101,856
[Whiteman]</th><th>The '993 Patent</th></tr>
<tr><td>FIG. 1

</td><td>FIG. 11 (partial)

</td></tr>
</table>

(Appx776). The same is true of Atkins, as Figure 3 of that patent makes clear:

U.S. Patent 4,230,232 [Atkins]	The '993 Patent
 Fig. 3	 FIG. 11

(Appx782). Nevertheless, the Board in its decision instituting review found that the claim language of the '993 Patent "does not require the neck to join the container body and, thus, does not preclude the insertion of a platform *between* the neck and shoulder." (Appx216 (emphasis added)).

In its post-institution response, Munchkin disputed the Board's conclusion in this regard. Specifically, Munchkin argued in pertinent part that the claimed "shoulder" must extend all the way to (or from) the neck, thereby preventing the presence of any intervening structure *between* the shoulder and the neck. (Appx250–256). This is true not only according to the language of the claims themselves, Munchkin explained, but also according to the explicit description of the "wing" in the specification, which is equivalent to the "shoulder" in the claims. (*See e.g.* Appx251). In addition, and in any event, Munchkin asserted that the phrase "platform is disposed on the shoulder" also requires the platform to be on top of, not adjacent to, the shoulder. (Appx256–259, Appx262, Appx264).

As a result, and incorporating the district court's construction, Munchkin proposed that the "shoulder" limitation be construed as "an outer surface of an upper end of the container body extends down from the neck radially outward to define an outwardly-extending area having a top surface that slopes downwardly in a non-concave manner, the shoulder being located where the neck joins the container body." (Appx256). And it proposed that the "platform" limitation be construed identically to the district court's construction: "a structural feature distinct from the shoulder and the container body and disposed on the shoulder to change the contour of the shoulder." (Appx259).

Munchkin further highlighted that a district court had already construed the critical "shoulder" and "platform" limitations, and it explained that its "position as to these two claim phrases is the same in this *inter partes* review as it was before the district court." (Appx243–244).

Finally, Munchkin filed a conditional motion to amend, in which it sought to substitute amended claim 8 for original claim 1. (Appx269–303). Munchkin's substitute claim 8 differs from claim 1 only in the addition of two "wherein" clauses, which simply incorporate the district court's constructions of the "shoulder" and "platform" limitations:

> 8. A container for a spillproof drinking assembly, comprising:
> a container body having a first upper open end and a lower closed end;
> a neck extending cylindrically outward and away from the first upper end of the container body, the neck including at least one threaded fastener on an outer surface of the neck to receive a cap,
> wherein an outer surface of an upper end of the container body extends below the neck radially outward to define a shoulder;
> a platform is disposed on the shoulder; and
> a snap projection is disposed on the platform, wherein the snap projection extends upward, away from the platform to a predetermined height~~.~~;
> wherein "an outer surface of an upper end of the container body extends below the neck radially outward to define a shoulder" means "an outer surface of an upper end of the container body extends down from the neck radially outward to define an outwardly-extending area having a top surface that slopes downwardly in a non-concave manner, the shoulder being located where the neck joins the container body; and

> wherein "a platform is disposed on the shoulder" means "a structural feature distinct from the shoulder and the container body and disposed on the shoulder to change the contour of the shoulder."

(Appx276–277).

In its reply, LNC attempted to justify the Board's initial constructions by distancing the claims from the preferred embodiment disclosed in the specification and depicted in Figures 1–11. (*See* Appx358–361). Indeed, it asserted that "it is perfectly normal for claims to cover certain embodiments and not others," and that Munchkin "never explains *why* claim 1 must read on the first embodiment." (Appx359, Appx358 (emphasis in original)). It then reproduced Figure 15, which depicts a different embodiment, and focused much of its discussion on that and other related figures. (Appx360).

D. The Board ignored and affirmatively contradicted the layered configuration of the '993 Patent, as well as the district court's construction of that configuration.

In its Final Written Decision (the "Final Decision"), the Board found the original claims of the '993 Patent unpatentable. (Appx21). It declined to formally construe the claimed "shoulder" but, critically, it found that the "shoulder" need not be located where the container neck joins the container body (i.e., the "shoulder" need not extend from or join the neck). (Appx6–9). As such, its interpretation did not "preclude a structure in which the recited platform 'disposed on the shoulder' results in a platform adjacent to the neck." (Appx9). The Board did not directly address the meaning of the "platform . . . disposed on the shoulder" limitation, however. (*See* Appx5–9).

Moreover, in declining to formally construe the "shoulder," the Board also specifically rejected Munchkin's position that the "shoulder," as used in the claims, is the same structure as the "wing," as used in the specification. (Appx7–8). The sole factual basis that the Board gave for this conclusion was that "[t]he drafters chose the word 'shoulder,' which does not appear in the descriptive portion of the specification of the '993 patent." (Appx8). The Board did not address the district court's constructions of the "shoulder" or "platform" limitations in assessing the original claims. (*See* Appx5–9).

Based upon its interpretation of these critical claim terms, the Board found that Whiteman and Atkins anticipate and render obvious the claims of the '993 Patent. (Appx10, Appx13, Appx15). Given the non-layered configuration of these references, as noted above, the Board recognized that the parties' primary dispute was whether the references disclose the requirement that a "platform is disposed on the shoulder." (Appx10). As to both references, the Board again concluded based on its interpretation of the claims that "the position of the platform between the shoulder and the neck does not negate anticipation." (Appx10, Appx12).

Thus, in the Board's view, Whiteman teaches a "platform . . . disposed on the shoulder" through "the combination of flat surface 11a and supporting structure 11, which sits upon a shoulder (beside reference numeral 10 in Figure 1 of Whiteman)," as annotated below. (Appx10). And Atkins, in the Board's view, teaches the same limitation through "the combination of flat surface 8 and supporting structure, which sits upon a shoulder that extends radially outward."[2] (Appx12).

[2] The Board found that the "same issues are dispositive of Petitioner's instituted obviousness ground" involving Whiteman and Atkins. (Appx15).

<table>
<tr><th>U.S. Patent 3,101,856 [Whiteman] (as annotated by Munchkin, according to the Board's explanation)</th><th>U.S. Patent 4,230,232 [Atkins] (as annotated by the Board)</th></tr>
<tr><td>FIG. 1

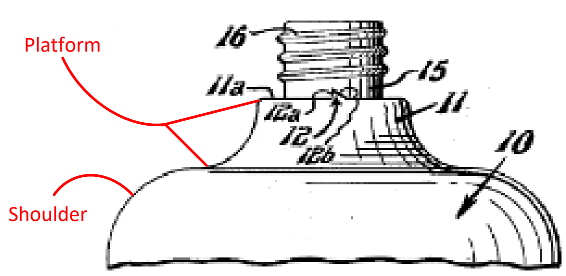
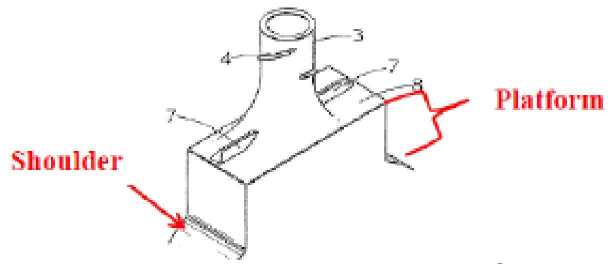

</td><td>

Fig. 3</td></tr>
</table>

Regarding Munchkin's conditional motion to amend, the Board acknowledged that Munchkin intended to conform its substitute claim to "the claim constructions adopted by the United States District Court for the Central District of California," but again it did not otherwise engage the district court's reasoning or arguments. (Appx17). Instead, the Board found that the substitute claim "enlarges the scope of the platform element of the claim such that the 'platform' may be any structural feature." (Appx20). This is improper, according to the Board, because "the evidence of record suggest[s] that a platform, as understood by a person of ordinary skill in the art, would at least be substantially flat, if not indeed 'a raised level surface.'" (Appx20). In reaching this conclusion, the Board did not engage Munchkin's claim differentiation argument, which the district court had previously relied on and adopted. Indeed, only *dependent* claim 3 of the '993 Patent recites a configuration "wherein the platform is substantially flat." (Appx49, at 10:6-39).

SUMMARY OF THE ARGUMENT

Nowhere does the '993 Patent describe or depict a container wherein a platform is located *between* the shoulder and the neck of the container. To the contrary, the claims recite that the platform is "disposed on" the shoulder, and the patent's figures uniformly depict the platform directly *on top of* the shoulder. Moreover, the intrinsic record equates the claimed shoulder with a wing, and the specification explains and depicts that the wing extends from the neck of the container. Several other claim limitations further confirm that the shoulder extends from the neck, which, by definition, means that a platform cannot be located between the shoulder and the neck.

Therefore, the Board's holding that both the "shoulder" and "platform" limitations in the claims allow for a platform to be located between the shoulder and neck is directly contrary to the intrinsic evidence. In fact, LNC itself acknowledges that the Board's holding—and

LNC's own argument underlying that holding—requires the claims to exclude the patent's preferred embodiment. This Court should reverse and, because the Board's erroneous interpretation of the claims is the sole basis for its conclusion that the original claims are unpatentable, further hold that the original claims are patentable.

The Board also erred in denying Munchkin's conditional motion to amend on the basis that Munchkin's amendment broadens the claims. That holding, too, is based on an improper interpretation of the claimed "platform" as recited in original claim 1. Indeed, while the Board elsewhere found that the original claims exclude the preferred embodiment, here it limited the "platform" to the preferred embodiment—despite the fact that the doctrine of claim differentiation dictates that the "platform" of claim 1 is not so limited. The Board also failed to explain how Munchkin's amendment can broaden the claims when the amendment precisely tracks the scope of the district court's construction, and the Board equated its claim construction standard with that applied by the district court. Thus, even if the Court declines to reverse the Board's holding regarding the original claims, it should reverse the Board's denial of Munchkin's motion to amend.

ARGUMENT

A. Standard of Review

This Court reviews the Board's claim constructions *de novo*, except for subsidiary factual findings based on extrinsic evidence, which the Court reviews for substantial evidence. *PPC Broadband, Inc. v. Corning Optical Comm. RF, LLC*, 815 F.3d 747, 751 (Fed. Cir. 2016). Whether an amendment broadens the scope of a claim is also a matter of claim construction, which this Court reviews *de novo*. *Predicate Logic, Inc. v. Distributive Software, Inc.*, 544 F.3d 1298, 1302 (Fed. Cir. 2008).

This Court further reviews the Board's legal conclusions and compliance with the governing legal standards *de novo*. *Nike, Inc. v. Adidas AG*, 812 F.3d 1326, 1332 (Fed. Cir. 2016); *Belden Inc. v. Berk-Tek LLC*, 805 F.3d 1064, 1073 (Fed. Cir. 2015).

B. The Board erred in finding the original claims of the '993 Patent unpatentable.

The Board's conclusion that the original claims of the '993 Patent are unpatentable turns entirely upon its claim constructions, which erroneously allow for the claimed platform to be located between the container's shoulder and neck. Had the Board correctly construed either the "shoulder" or the "platform" limitation, it could not have reached this result.

1. The Board improperly construed the claimed "shoulder" limitation.

Contrary to the Board's finding, the claimed "shoulder" must be located where the neck joins the container body. This is true for two independent reasons: (1) the "shoulder" in the claims is the same as the "wing" in the specification, and the specification makes clear that the "wing" extends from the neck; and (2) the claims themselves make clear through multiple other limitations that the "shoulder" extends from the neck.

a. The "shoulder" is the same as the "wing," which extends from the neck.

The Board's finding that the "shoulder" and the "wing" are different structures is wrong because both the prosecution history and the specification reveal the "wing(s)" to be *exactly* the same thing as the "shoulder." In addition, if the "shoulder" and the "wing" are different structures, then claims of the '993 Patent *exclude* the invention's preferred embodiment, despite overwhelming evidence that the claims must include the preferred embodiment.

Regarding the first point, the specification states that the wing "protrudes radially outwardly from a first side of the cup main body 23" and forms "part of the upper surface of the cup body 22." (Appx47, at 5:12-23). The claims, in turn, recite that an "outer surface of an upper end of the container body extends below the neck radially outward to define a shoulder." (Appx49, at 10:15-17). The specification's explanation of the "wing" and the claims' recitation of the "shoulder" are the patent's only two descriptions of a structure that comprises an upper surface of the container extending "radially outward(ly)." Thus, the only logical reading of the patent suggests that the "wing" must be the "shoulder."

Similarly, the "wing" and the "shoulder" are the only structures on which the patent places the invention's "platform." The specification explains that a "platform 68" is "located on an upper portion of the respective cup wing 24, 26," and it identifies no other structure apart from features 24 and 26 upon which a "platform" is located. (Appx47, at 6:12-14). The claims recite that the "platform is disposed on the shoulder." (Appx49, at 10:18). Thus, once again, equating the "wing" and the "shoulder" makes logical sense of both the specification and the claims.

Indeed, if the "shoulder" and the "wing" are different structures, then the preferred embodiment and the claimed invention place the "platform" in different locations, and they therefore cannot both be covered by the claims. Not surprisingly, then, LNC admitted before the district court that if the claims of the '993 Patent read on the preferred embodiment of the invention, then the "shoulder" in the claims must be the same as the "wing" in the specification. This is so, LNC conceded, because the specification only and always places the "platform"—which is on the "shoulder" in the claims—on the "wing":

> [LNC's counsel]: And the platform is on top of that thing which they call a cup wing, Number 24 and 26. That tells me that maybe that's the shoulder that they're talking about. Maybe they changed the word "cup wing" when they wrote the claim and they decided to call it a shoulder. *Because that's the only thing that has a platform sitting on it. There is no other part of this patent where there's a platform on top of anything else. So if the claim is going to be construed to read on this specification and on these drawings, that [i.e., the wing] has to be the shoulder*.

(Appx3448–3449).

LNC reaffirmed this concession in its reply to Munchkin's post-institution response before the Board, stating that "LNC agreed that *if we assume* that claim 1 reads on the first embodiment," then the "shoulder" and the "wing" are the same, "because the platform 'disposed on the shoulder' is not shown anywhere else." (Appx358 (emphasis in original)). Again at the hearing, counsel for LNC affirmed that the equivalence of the "wing" and the "shoulder" "hinges on assuming that claim 1 reads on the first embodiment." (Appx716). "If claim 1 reads on the first embodiment," counsel continued, "there is no other structure it could possibly be." (Appx716).

Contrary to LNC's suggestion, however, there is no reason *not* to assume that claim 1 reads on the patent's preferred embodiment. As an initial matter, this Court has held that "[a] claim construction that excludes a preferred embodiment is 'rarely, if ever, correct.'" *Kaneka Corp. v. Xiamen Kingdomway Group Co.*, 790 F.3d 1298, 1304 (Fed. Cir. 2015). (quoting *MBO Labs., Inc. v. Becton, Dickinson & Co.*, 474 F.3d 1323, 1333 (Fed. Cir. 2007)). This principle alone casts significant doubt on LNC's argument and the Board's holding.

Moreover, the applicant's election of Species I—representing the preferred embodiment—during prosecution means that the claims must at least read on the preferred embodiment, if not be limited to it. (Appx1054, Appx1058–1059); s*ee* 37 C.F.R. § 1.146 ("[T]he examiner may require the applicant . . . to elect a species of his or her invention to which his or her claim will be restricted if no claim to the genus is found to be allowable."); *St. Jude Med., Inc. v. Access Closure, Inc.*, 729 F.3d 1369, 1378 (Fed. Cir. 2013). This fact conclusively rebuts the Board's holding.

Still further, however, the prosecution history reveals that the "shoulder" supplanted the "wing" through the course of the applicant's amendments, as explained above—which is precisely why no claims issued reciting a "wing." And, as also discussed above, the specification's explanation of the "wing(s)" conveys *exactly* the same thing as the claim language relating to the "shoulder." All of this overwhelmingly reveals that the "shoulder" and the "wing" are the same thing.

The Board conspicuously did not dispute or address the apparent equivalence of the "shoulder" and "wing" as revealed by the intrinsic evidence. Rather, according to the Board, the "shoulder" in the claims is not the same as the "wing" in the specification *only* because the two terms are not the same. (*See* Appx7–8 ("The drafters chose the word 'shoulder,' which does not appear in the descriptive portion of the specification of the '993 patent."). It gave no further reasoning. But, even beyond the Board's lack of analysis, a mere difference in terms alone does not dictate contrary meanings.

Indeed, "word-for-word alignment of disclosed embodiments . . . with claim language is unnecessary when the meaning of a claim term can be ascertained from the intrinsic record." *Kaneka Corp. v. Xiamen Kingdomway Group Co.*, 790 F.3d 1298, 1305 (Fed. Cir. 2015). As a result, this Court on numerous occasions has construed a claim term to equate to a different term appearing in the specification. In *Tegal Corp. v. Tokyo Electron Am., Inc.*, 257 F.3d 1331, 1345 (Fed. Cir. 2001), for example, the Court explained that "[b]ecause one of skill in the art would understand from the prosecution history that the term 'glow discharge' is intended to be coextensive with the term 'plasma,' we construe it accordingly." Similarly, in *Mich & Mich TGR, Inc. v. Brazabra Corp.*, 657 Fed. Appx. 971, 975 (Fed. Cir. 2016) (unpublished), the Court reasoned that "[a]s the specification refers to only an 'elongate main portion,' . . . the district court properly concluded that the '766 patent uses the terms 'elongate main portion' and 'elongated member' interchangeably."

Here, for all of the reasons just explained, both the prosecution history and the specification overwhelmingly support the conclusion that the "shoulder" and the "wing" are the same structure, despite the different terminology.

* * *

Once it is clear that the "shoulder" is the "wing," it is apparent that the specification plainly explains that the shoulder (or wing) extends from the neck of the container. Specifically, the specification states that the wings "protrude[] radially outwardly *from a first side of the cup main body 23*." (Appx47, at 5:12-14 (emphasis added)). And the "cup main body 23" is the neck. Indeed, the "cup main body 23" is where the specification locates the cup's threaded fasteners: "at least one helical lid thread 62 is provided on an inner circumferential of the lid body 12, which mates with at least one helical cup thread 64 that is defined on an outer circumferential surface *of the circular main body 23* of the cup body 22." (Appx47, at 5:54-60 (emphasis added)).

The specification reinforces this point elsewhere when it explains that "the first cup wing 24 extends radially outwardly from the cup main body 23 by a third distance D_3." (Appx47, at 6:58-60). Figure 5 makes clear that the distance D_3 extends from the neck:

U.S. Patent 8,739,993

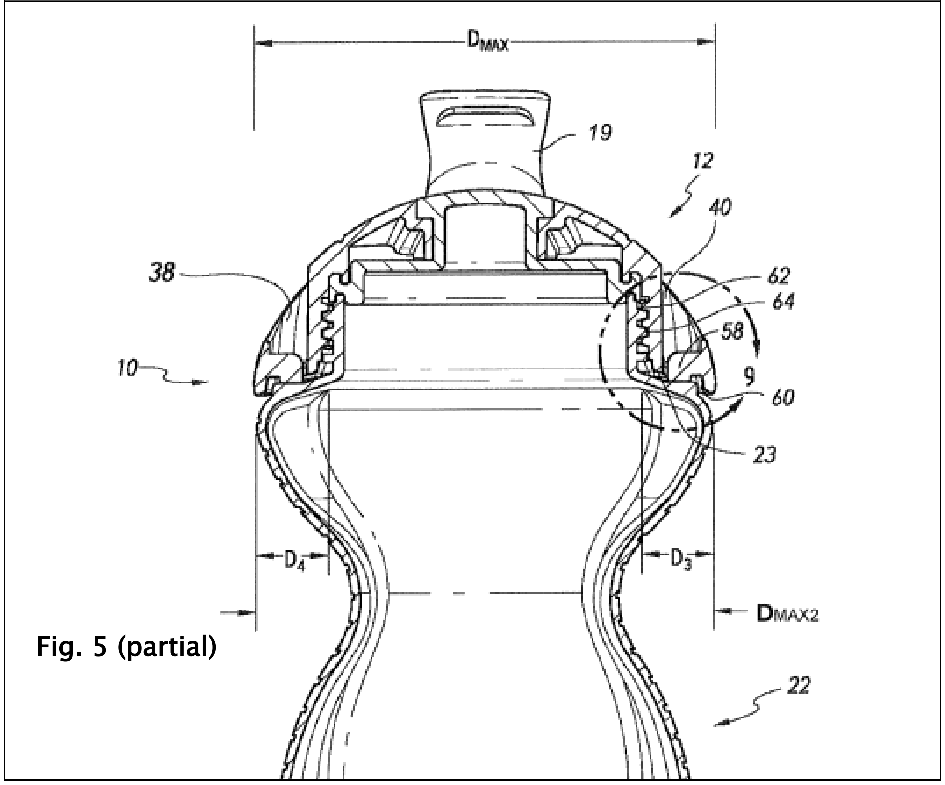


Fig. 5 (partial)

(Appx30). As such, the "cup wing 24," which is the claimed "shoulder," necessarily extends *from the neck.*

The Board's finding to the contrary, which was not based upon an analysis of any of the foregoing intrinsic evidence, is therefore erroneous. This Court should reverse accordingly.

b. The claims themselves also establish that the "shoulder" extends from the neck.

The Board also failed to take account of several other related limitations in the claims that independently establish that the "shoulder" extends from the neck.

First, the claim language describing the shoulder dictates that its starting point is an "an outer surface of *an upper end* of the container body." (Appx49, at 10:15-17 (emphasis added)). This "upper end" is not merely a floating portion somewhere within the upper half of the container body, but rather is just what it says—the "end" of the container body. Indeed, claim 1 elsewhere introduces this end as an "upper open end." (Appx49, at 10:9-10).

This "upper end" is the same point from which the neck extends, as the claim expressly recites "a neck extending cylindrically outward and away *from the first upper end* of the container body." (Appx49, at 10:11-12 (emphasis added)). Thus, the language of claim 1 itself, like the specification, dictates that the shoulder joins and extends from the neck—at the "upper end" of the container body, as annotated below. There is no other reasonable way to interpret the claim.

The '993 Patent (annotated)

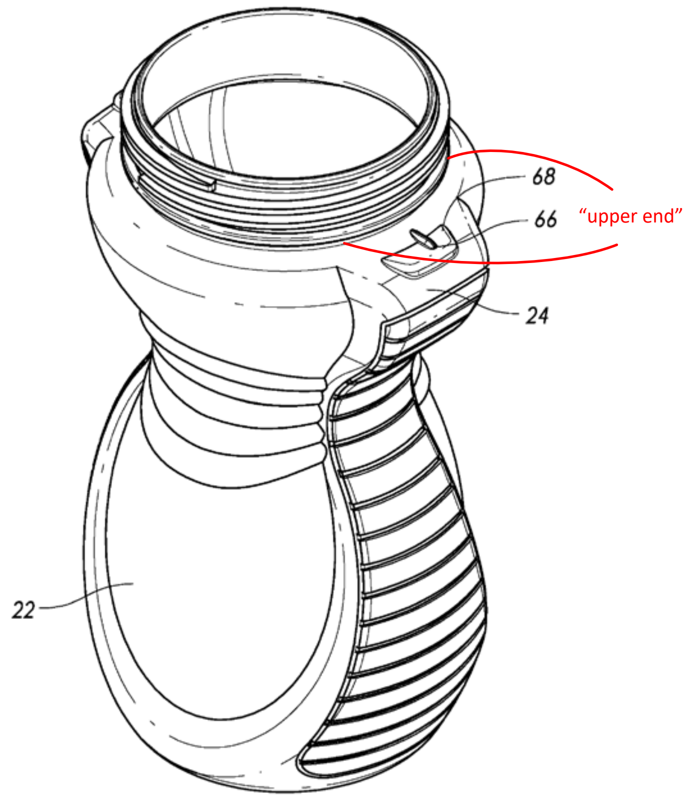


FIG. 11

Dependent claim 5 reinforces that the shoulder joins the neck. The purpose of both claim 5 and claim 4 is to recite a specific location for the snap projection, and both claims use the "shoulder" as a baseline for that location. Claim 4 references the "outer end of the shoulder," whereas claim 5 references the "inner end of the shoulder." Claim 5 also expressly recites, however, that the "inner end of the shoulder" is "adjacent to the neck":

> 5. A container for a spillproof drinking assembly according to claim 4, wherein the snap projection extends radially inward to a second end adjacent to an inner end of the shoulder adjacent to the neck.

(Appx49, at 10:30-33). This "adjacent to the neck" language plainly indicates that the shoulder adjoins, or is next to, the neck.

Indeed, dependent claim 6 further confirms this point. That claim depends from claim 5 and adds that "a gap is provided between the second end of the snap projection and the neck." (Appx49, at 10:34-36). The implication from claim 6 is that claim 5 covers a container with no gap between the snap projection and the neck. And because the snap projection of claim 5 extends "to an inner end of the shoulder," this indicates that there is likewise no gap between the shoulder and the neck.

Thus, for these independent reasons, as well, the Board erred in concluding that the "shoulder" need not be located where the neck joins the container body. And if the "shoulder" must be located where the neck joins the container body, the "platform" cannot be located between the "shoulder" and the neck. These facts alone warrant reversal. Munchkin's proposed construction—"an outer surface of an upper end of the container body extends down from the neck radially outward to define an outwardly-extending area having a top surface that slopes downwardly in a non-concave manner, the shoulder being located where the neck joins the container body"—properly requires the shoulder to join the neck, and is in all other respects correct. As such, Munchkin submits that the Court should adopt Munchkin's construction.[3]

2. The Board also improperly construed the claimed "platform . . . disposed on the shoulder."

In addition to its erroneous construction of the "shoulder," the Board also erred in (at least implicitly) construing the claimed "platform . . . disposed on the shoulder." Contrary to the Board's finding, this limitation, like the "shoulder" limitation, does not allow for the "platform" to be located adjacent to the shoulder, between the shoulder and the neck.

Rather, the "disposed on" language requires that the platform be layered *on* the shoulder, such that the platform and shoulder share the same vertical space. This is the plain meaning of "on," and the specification does not contemplate any other meaning. For example, the specification explains that in the preferred embodiment the "platform 68" is

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[3] The Court need not, however, adopt Munchkin's entire construction in order to reverse and enter judgment in favor of Munchkin. Rather, the Court need only conclude that the claims do not allow the "platform" to be located between the "shoulder" and the neck of the container.

"located on an upper portion of the respective cup wing 24, 26." (Appx47, at 6:13-15). Figure 11 makes clear that this means that the "platform" 68" is on top of the wing, not adjacent to it. In fact, nowhere does the specification describe the platform as being located adjacent to the wing. Similarly, *none* of the patent's figures—including Figures 12–20—depict a platform that is adjacent to or otherwise not on top of the wing (or shoulder). (*See* Appx26–44).

Notably, claim 1 also uses the "disposed on" language in reciting the location of the "snap projection": "a snap projection is disposed on the platform, wherein the snap projection extends upward, away from the platform to a predetermined height." (Appx49, at 10:19-21). The "disposed on" language here clearly places the snap projection on top of the platform. Indeed, in reciting that the snap projection "extends *upward, away from* the platform" the claim language itself assumes that the platform is underneath the snap projection. (Appx49, at 10:19-21 (emphasis added)). And LNC itself has properly argued that the purpose of the platform is "to elevate a snap projection high enough to reach the flexible tab 58 of the lid." (Appx369). This purpose necessarily requires the snap projection to be on top of the platform, not adjacent to it. Thus, the Board's implicit interpretation of "disposed on" in the context of the platform and shoulder is inconsistent with the accepted meaning of "disposed on" in the context of the snap projection and the platform.

During the hearing below, counsel for LNC addressed the "disposed on" language and argued that "disposed on the side of the shoulder, that's enough," and "[i]f the snap projection is disposed on the side of the platform, that's enough." (Appx712). The Board obviously adopted this reasoning. But, tellingly, "disposed on the side of" is different than merely "disposed on." LNC's own argument is therefore explicit proof that LNC's and the Board's position departs from the plain meaning of "disposed on."

For all of these reasons, the Board erred in concluding that the "platform . . . disposed on the shoulder" allows for the platform to be adjacent to the shoulder, without sharing any of the same vertical space. Once again, this fact alone warrants reversal. Munchkin submits that its proposed construction—"a structural feature distinct from the shoulder and the container body and disposed on the shoulder to change the contour of the shoulder"—properly requires the platform to be located on, and not adjacent to, the shoulder, and it argued as much below. (*See* Appx256). As such, Munchkin submits that the Court should adopt it.[4]

3. Properly construed, the original claims are patentable.

Because the original claims of the '993 Patent do not allow for the platform to be located between the shoulder and neck of the container, the claims must be patentable over the asserted prior art.

Indeed, the Board found that the *only* dispute regarding the original claims was whether Whiteman or Atkins disclose the requirement that "a platform is disposed on the shoulder," or whether such a requirement would have been obvious over a combination of Whiteman and Atkins. (Appx10 ("The parties only dispute whether Whiteman discloses the requirement that 'a platform is disposed on the shoulder.'"), Appx12). And the Board resolved this question entirely on the basis of its erroneous conclusion that the claims allow for the platform to be located between the shoulder and neck of the container. (*See* Appx10, Appx12–13).

[4] *See* n. 3, *supra*.

Regarding the issue of anticipation in light of Whiteman and Atkins, the Board found that "the position of the platform between the shoulder and the neck does not negate anticipation." (Appx10, Appx12). And the Board found that the "same issues are dispositive of Petitioner's instituted obviousness ground." (Appx15). Inherent in these holdings is the finding that the alleged platforms in Whiteman and Atkins are, in fact, located *between* the shoulders and necks of those respective containers.

As such, a reversal of the Board's finding that the original claims allow for the platform to be located between the shoulder and neck of the container will also be conclusive of the issues of anticipation and obviousness. Munchkin therefore submits that this Court can and should reverse the Board's Final Decision regarding the original claims and find the claims to be patentable, without the need for remand.

C. In the alternative, the Board erred in denying Munchkin's motion to amend.

If the Court declines to reverse the Board's holding that the original claims of the '993 Patent are unpatentable, it should reverse the Board's denial of Munchkin's conditional motion to amend. The Board's denial of that motion is also based upon an erroneous claim construction, and the Board further failed to take account of the propriety of the district court's constructions.

1. The Board's denial of Munchkin's motion is based on an erroneous construction of the claimed "platform."

The Board ultimately based its denial of Munchkin's conditional motion to amend on its construction of the term "platform." Specifically, it found that Munchkin's amendment in substitute claim 8, which in relevant part was meant to further clarify the meaning of the claimed platform, "enlarges the scope of the platform element such that the 'platform' may be any structural feature." (Appx20). As noted above, the Board found this improper because, in its view, "the evidence of record suggest[s] that a platform, as understood by a person of ordinary skill in the art, would at least be substantially flat, if not indeed 'a raised level surface,' which is the dictionary definition of the term 'platform' presented by Petitioner." (Appx20). The Board's finding that the patent's platform "would at least be substantially flat" contradicts the intrinsic record, however, and is therefore erroneous.

The specification, for example, states that the platform "is *preferably* substantially flat," which plainly indicates that the platform is not *necessarily* flat. (Appx47, at 6:18-19). This description from the specification finds even more concrete application in dependent claim 3, which is directed to the container claimed in claim 2 (which also depends from claim 1), "wherein the platform is substantially flat." (Appx49, at 10:25-26). Pursuant to the doctrine of claim differentiation, "the presence of a dependent claim that adds a particular limitation raises a presumption that the limitation in question is not found in the independent claim." *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 910 (Fed. Cir. 2004). In other words, the "platform" of claim 1 (and claim 2) is presumed not to contain the "substantially flat" limitation that is expressly added in claim 3.

The Board, in concluding that the platform must be "at least substantially flat" did not address this claim differentiation issue at all. Rather, in construing the "platform" in this context the Board merely cited the specification passage above stating that the platform "is *preferably* substantially flat," and cited a dictionary defining "platform" as "a raised level surface." (Appx20). But the dictionary definition is extrinsic evidence that "cannot overcome [the] more persuasive intrinsic evidence" in this case. *Kara Tech. Inc. v. Stamps.com Inc.*, 582 F.3d 1341, 1348 (Fed. Cir. 2009). And the specification passage regarding the preferable nature of the platform plainly does not support the Board's limiting construction. Indeed, it is glaring that in this context the Board *limited* the claims to the preferred embodiment of the invention, whereas previously it *excluded* the invention's preferred embodiment from the scope of the original claims. The Board cannot have it both ways.

Because the "platform" of claim 1 is not necessarily "substantially flat," the fact that claim 8 does not require a substantially flat platform does not render claim 8 broader than claim 1.

In addition, the context of Munchkin's substitute claim also refutes the Board's conclusion that Munchkin's amendment somehow allows for the platform to be "*any* structural feature." On this point, the Board in its Final Decision apparently credited LNC's argument that a "pyramid" would qualify as a "platform" under substitute claim 8 (Appx18–19), but this view assumes that Munchkin's amended language exists only in a vacuum, untethered to the entire intrinsic record. Munchkin's amendment does not excise the term "platform" from the claim, nor does it eliminate the specification's explanation and depiction of the platform in context. Instead, the amendment brings clarity to how and where the platform appears within the invention. Thus, claim 8 does not allow for structures that are not platforms.

Moreover, claim 8, like original claim 1, still requires a "snap projection" that is "disposed on the platform" and that "extends upward, away from the platform." Thus, a pyramid—or any other structure—that does not allow for such a snap projection would not qualify as a "platform" under the language of the claim.

Even in the context of determining whether an amendment broadens the scope of a claim, "[p]roper claim construction. . . demands interpretation of the entire claim in context, not a single element in isolation." *Hockerson-Halberstadt, Inc. v. Converse Inc.*, 183 F.3d 1369, 1374 (Fed. Cir. 1999). Indeed, in *Hockerson* this Court found that an amendment that apparently broadened the claim was, in fact, limited by another limitation in the claim. *Id.* at 1374-75. Here, the still-existing limitations in claim 8 relating to the "platform" constrain Munchkin's amendment such that the scope of original claim 1 and substitute claim 8 in regards to the "platform" (and all other limitations) are the same.

Because Munchkin's amendment in claim 8 relating to the "platform," properly construed, does not broaden the scope of original claim 1, the Board erred in denying Munchkin's conditional motion to amend. This Court should therefore reverse the Board's denial of Munchkin's conditional motion to amend.

2. The Board was without justification in departing from the district court's claim constructions.

On a broader level, the Board simply cannot justify its departure from the district court's claim constructions. And even if it could, it did not articulate any such justification below. Its denial of Munchkin's conditional motion to amend is therefore improper for these reasons, as well.

Because Munchkin's amendment in substitute claim 8 simply incorporates the district court's claim constructions, the Board's conclusion that Munchkin's amendment broadens the claims also effectively means that, at least in the Board's unstated view, the district court's constructions broaden the claims, as well. And while the Board is not bound by a district court's claim constructions, it is typically able to justify departures from those constructions by invoking the broadest reasonable interpretation standard. *See* 37 C.F.R. § 42.100 (dictating that a claim in an *inter partes* review "shall be given its broadest reasonable construction in light of the specification of the patent in which it appears"). But the Board in this case cannot avail itself of that justification, for two reasons.

First, the Board's finding that Munchkin's "platform" amendment broadens the claim is based upon a *narrower* construction of the "platform" than that arrived at by the district court. Second, and relatedly, the Board in this case equated the broadest reasonable interpretation standard with the ordinary meaning standard applied by district courts. Specifically, the Board in its Final Decision explained that "we generally give claim terms their ordinary and customary meaning, as would have been understood by one of ordinary skill in the art at the time of the invention." (Appx6 (citing *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007))). This standard is the same standard set forth in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005), and applied by district courts in litigation. Indeed, the *Translogic* case cited by the Board quotes *Phillips* for the proposition that claim terms "are generally given their ordinary and customary meaning." 504 F.3d at 1257 (quoting *Phillips*, 415 F.3d at 1312).

For these reasons, the Board cannot justify its departure from the district court's constructions by invoking or implicitly relying on the broadest reasonable interpretation standard. More than that, however, the Board affirmatively violated the broadest reasonable interpretation standard, contrary to 37 C.F.R. § 42.100. This Court can and should reverse the Board's holding on Munchkin's conditional motion to amend for this reason alone.

Moreover, even if there were some logical justification for the Board's departure from the district court's claim constructions, the Board failed to articulate it. Indeed, the Board undertook no analysis of whether the district court's claim constructions were consistent with the broadest reasonable interpretation standard or, for that matter, the ordinary meaning standard that it apparently applied. This Court has held that when a party asserts as a central argument that the proper construction of a term is tied to a district court's construction, the Board has an obligation to evaluate such a construction and determine whether it is consistent with the broadest reasonable interpretation:

> Given that Power Integrations' principal argument to the board about the proper interpretation of the term "coupled" was expressly tied to the district court's claim construction, we think that the board had an obligation, in these

> circumstances, to evaluate that construction and to determine whether it was consistent with the broadest reasonable construction of the term.

Power Integrations, Inc. v. Lee, 797 F.3d 1318, 1327 (Fed. Cir. 2015).

Although it is true that the Board need not address a district court's construction in every case, the circumstances here are analogous to those in *Power Integrations*, in that Munchkin's position regarding the propriety of its proposed substitute claim is expressly based on and inextricably tied to the district court's claim constructions. The Board's failure to engage the district court's constructions in order to reconcile the apparent paradox of its findings leaves its denial of Munchkin's motion to amend without any logical support, and is further detrimental to this Court's ability to review the Board's decision. Thus, this Court should also reverse the Board's denial of Munchkin's conditional motion to amend because the Board made no finding concerning whether the district court's claim constructions were consistent with the claim construction standard that the Board applied—whether the broadest reasonable interpretation standard or otherwise.

CONCLUSION AND STATEMENT OF RELIEF

There is simply no basis for the conclusion that the claims of the '993 Patent allow for the recited "platform" to be located between the "shoulder" and the neck of the claimed container. As such, Munchkin respectfully requests that the Court reverse the Board's conclusion in this regard (including the Board's interpretation of the "platform" and "shoulder" limitations), reverse the Board's holding that the original claims are unpatentable, find the original claims patentable, and enter judgment in favor of Munchkin.

In the alternative, because the Board also erred in construing the "platform" for purposes of Munchkin's conditional motion to amend, Munchkin respectfully requests that the Court reverse the Board's decision on that motion, and remand for further proceedings.

Respectfully submitted,

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ADDENDUM

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Paper 56
Entered: September 15, 2016

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

LUV N' CARE, LTD.,
Petitioner,

v.

MUNCHKIN, INC.,
Patent Owner.

Case IPR2015-00872
Patent 8,739,993 B2

Before SHERIDAN K. SNEDDEN, MITCHELL G. WEATHERLY, and JAMES A. TARTAL, *Administrative Patent Judges.*

SNEDDEN, *Administrative Patent Judge*.

FINAL WRITTEN DECISION
35 U.S.C. § 318(a) and 37 C.F.R. § 42.73

I. INTRODUCTION

Luv N' Care, Ltd. ("Petitioner") filed a corrected Petition to institute an *inter partes* review of claims 1–7 (Paper 4; "Pet.") of US 8,739,993 B2, issued June 3, 2014 (Ex. 1001, "the '993 patent"). Munchkin, Inc. ("Patent Owner") filed a Patent Owner Preliminary Response. Paper 8 ("Prelim. Resp.").

Based on these submissions, we instituted trial on the following grounds of unpatentability asserted by Petitioner:

Reference[s]	Basis	Claims challenged
Whiteman[1]	§ 102	1–7
Atkins[2]	§ 102	1–7
Whiteman and Atkins	§ 103(a)	1–7

Decision to Institute (Paper 9, "Dec.").

After institution of trial, Patent Owner filed a Patent Owner Response (Paper 13, "PO Resp."), to which Petitioner filed a Reply (Paper 22, "Pet. Reply").

Petitioner relies on the Declarations of John Staats (Ex. 1027) and Vincent Valderrama (Ex. 1033).

Patent Owner relies on the Declaration of Travis McCallon (Ex. 2011).

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[1] U.S. Patent No. 3,101,856, issued Aug. 27, 1963 (Ex. 1002).
[2] U.S. Patent No. 4,230,232, issued Oct. 28, 1980 (Ex. 1003).

Patent Owner filed a Contingent Motion to Amend (Paper 14, "Mot. Amend"), to which Petitioner filed an Opposition (Paper 23, "Opp. Mot. Amend") and Patent Owner filed a Reply (Paper 37, "Reply Mot. Amend").

Oral argument was conducted on May 10, 2016. A transcript is entered as Paper 53 ("Tr.").

This Final Written Decision is entered pursuant to 35 U.S.C. § 318(a). We conclude for the reasons that follow that Petitioner has shown by a preponderance of the evidence that claims 1–7 of the '993 patent are unpatentable. Furthermore, we deny Patent Owner's Motion to Amend.

A. The '993 patent (Ex. 1001)

The '993 patent discloses "a spillproof container assembly that provides guidance to consumers as to the proper degree of tightening between the lid and the container body." Ex. 1001, 2:21–24. The spillproof container assembly includes a container body and a lid body, which are provided with mating helical threads so that the lid body may be fastened to the container body by screwing. *Id.* at 2:65–3:8.

The spillproof container assembly may be provided with a structure for providing "visual, audible and tactical feedback to a user in determining when the optimum design tightness and position has been reached" between the lid body and the container body. *Id.* at 5:65–6:2. A snap projection is disclosed as one such structure. *Id.* at 6:3–13. The snap projection may be in the form of a snap ridge or, alternatively, as "single or multiple bumps or posts, which could work individually or as a group to engage the flexible tab." *Id.* at 8:11–15.

Figure 11 of the ’993 patent is reproduced below.

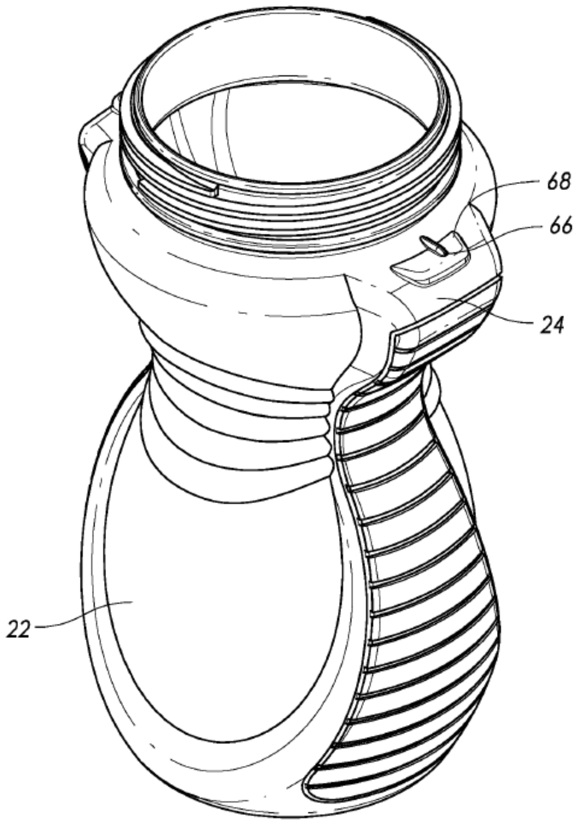

FIG. 11

Figure 11 is a perspective of container body 22. *Id.* at 3:65–67. With reference to Figure 11, the ’993 patent provides as follows:

> Cup body **22** includes at least one container wing or cup wing that protrudes radially outwardly from a first side of the cup main body **23**, which enables a consumer to grip and exert torque on the cup body **22** during tightening and untightening of the lid body **12**. In the preferred embodiment, the cup body **22** includes a first cup wing **24** that protrudes radially outwardly from a first side of the cup main body **23** and a second cup wing **26** that protrudes radially outwardly from a second, opposite side of the

> cup main body **23**. The respective cup wings **24**, **26** both preferably form part of the upper surface of the cup body **22**.

Id. at 5:13–21.

Container body 22 is shown with platform 68, which "is preferably substantially flat, and is further preferably substantially disposed within a plane that is substantially normal to a longitudinal axis of the cup body **22**." *Id.* at 6:18–21. Snap ridge 66 projects upwardly from the raised platform 68 that is located on the shoulder of container body 22. *Id.* at 8:7–10.

B. Illustrative Claims

Independent claim 1 is illustrative of the challenged claims, and is reproduced below:

> 1. A container for a spillproof drinking assembly, comprising:
> a container body having a first upper open end and a lower closed end;
> a neck extending cylindrically outward and away from the first upper end of the container body, the neck including at least one threaded fastener on an outer surface of the neck to receive a cap,
> wherein an outer surface of an upper end of the container body extends below the neck radially outward to define a shoulder;
> a platform is disposed on the shoulder; and
> a snap projection is disposed on the platform, wherein the snap projection extends upward, away from the platform to a predetermined height.

Claims 2–7 depend from claim 1, either directly or indirectly.

II. ANALYSIS

A. Claim Interpretation

In an *inter partes* review, the Board interprets claim terms in an unexpired patent according to the broadest reasonable construction in light of the specification of the patent in which they appear. *See* 37 C.F.R. § 42.100(b); *Cuozzo Speed Techs. LLC v. Lee*, 136 S. Ct. 2131, 2144–46 (2016). Under that standard, and absent any special definitions, we generally give claim terms their ordinary and customary meaning, as would have been understood by one of ordinary skill in the art at the time of the invention. *See In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). Any special definitions for claim terms must be set forth with reasonable clarity, deliberateness, and precision. *See In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994).

We interpret "shoulder" as recited in the challenged claims as part of our analysis. Our decision does not require explicit construction of any other claim term. *See, e.g., Wellman, Inc. v. Eastman Chem. Co.*, 642 F.3d 1355, 1361 (Fed. Cir. 2011) ("[C]laim terms need only be construed 'to the extent necessary to resolve the controversy.'") (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

In our Decision to Institute, we declined to adopt Petitioner's construction of the term "shoulder" to mean "a part with a suddenly increased width or thickness (compared to its neighboring structure)." Pet. 4 (citing Ex. 1010[3]) (emphasis omitted). In doing so, we noted that the term "shoulder" is expressly defined in the following clause from claim 1: "wherein an outer surface of an upper end of the container body extends below the neck radially outward to define a shoulder." In its Reply, Petitioner does not contest this construction. Pet. Reply 3–7.

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[3] The *McGraw-Hill Dictionary of Scientific and Technical Terms* (6th ed.) (2003).

Patent Owner, however, proposes a different construction for "shoulder." PO Resp. 9–15. Patent Owner contends that "the ordinary meaning of 'shoulder' is 'a rounded or sloping part (as of a stringed instrument or a bottle) where the neck joins the body.'" *Id.* at 14–15 (citing Ex. 2004[4]). Patent Owner further contends that "the specification is clear that the claimed shoulder extends from the neck of the container," and that "the language of claim 1 itself, like the specification, dictates that the shoulder joins the neck (at the 'upper end' of the container body)." PO Resp. 12, 14 (emphasis omitted). To support this argument, however, Patent Owner attempts to equate the claimed "shoulder" with a "cup wing" structure described in the specification. *Id.* at 10–12 (citing Ex. 1001, 5:12–23, 6:13–14, Figure 11). Patent Owner reasons that because the specification discloses that "the first cup wing 24 extends radially outwardly from the cup main body 23 by a third distance D_3," that a person of ordinary skill in the art would understand that the "shoulder" element of the claims must join the neck. *Id.* at 12 (citing Ex. 1001, 6:58–60.)

We are not persuaded by Patent Owner's argument that "shoulder," as used in the claims, has the same meaning as "wings," as used elsewhere in the specification. If the drafters of the claims intended the claims to be limited to the preferred embodiment disclosed in the specification, described as having wings, then the drafters could have chosen to use the language of the specification that describes that embodiment and included a clear and precise definition of the term "wings." The drafters of the claim did not use terms such as "wings" to claim their invention. The drafters chose the word "shoulder," which does not appear in the descriptive portion of the specification of the '993 patent. We must otherwise "avoid giving invention-defining effect to specification language included for other descriptive and enablement purposes." *Straight Path IP Group, Inc. v. Sipnet EU S.R.O.*, 806 F.3d 1356, 1361 (Fed. Cir. 2015); *Epos Techs. Ltd. v. Pegasus Techs. Ltd*., 766 F.3d 1338 (Fed. Cir 2014) (claim construction based on a preferred embodiment is improper). Thus, the only definition of the term "shoulder" appears in claim 1. Patent Owner has not otherwise directed us to any evidence suggesting that the inventors attempted to be their own lexicographer requiring us to give other special meaning to the term "shoulder."

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[4] Definition of "shoulder" retrieved from the website of Merriam Webster (http://www.merriam-webster.com/dictionary/shoulder). Ex. 2004.

We acknowledge that a dictionary definition may be useful in ascertaining the way in which one of ordinary skill in the art would use the claim term. *Starhome GmbH v. AT&T Mobility LLC*, 743 F.3d 849, 856–57 (Fed. Cir. 2014). However, in this case "shoulder" is expressly defined as "an outer surface of an upper end of the container body [that] extends below the neck radially outward to define a shoulder." We are not persuaded that Petitioner's dictionary definition (*see* Pet. 4 (citing Ex. 1010 ("[t]he portion of a shaft, a stepped object, or a flanged object that shows an increase of diameter") or Patent Owner's dictionary definition (*see* PO Resp. 14–15 (citing Ex. 2004) supersedes the express definition provided in the claims.

We maintain our determination that the term "shoulder" is expressly defined in the following clause from claim 1: "wherein an outer surface of an upper end of the container body extends below the neck radially outward to define a shoulder." Accordingly, we decline Patent Owner's invitation to import a requirement from a dictionary definition of shoulder which refers broadly to an area “where the neck joins the body” to preclude a structure in which the recited platform “disposed on the shoulder” results in a platform adjacent to the neck. .

B. Asserted Grounds of Unpatentability

1. Anticipation of Claim 1–7 over Whiteman

Petitioner contends that Whiteman anticipates claims 1–7. Pet. 10–18. In support of its assertion that Whiteman anticipates claims 1–7, Petitioner sets forth the following teachings of Whiteman and provides a detailed claim chart explaining how each claim limitation is disclosed in Whiteman. Pet. 10–18.

Whiteman discloses “a bottle closure incorporating a locking mechanism for securing the cap to the bottle whereby the same cannot be removed without the proper manipulation of the bottle.” Ex. 1002, 1:7–11. Figure 1 of Whiteman is reproduced below.

FIG. 1

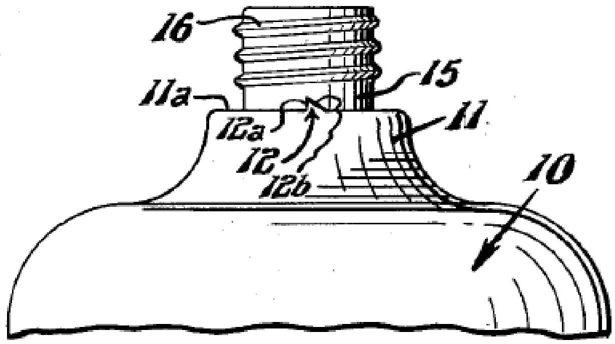


Figure 1 shows container 10 with neck 15, shoulder portion 11, flat surface 11a, and saw-tooth protrusions 12. *Id.* at 1:68–2:24. Neck 15 includes spiral thread 16, which is designed to complement the thread positioned in the interior surface of a cap. *Id.* As the cap is threaded onto the container, indentations on the cap slip over and engage protrusions 12 and prevent the cap from rotating in the loosening direction. *Id.* at 2:25–45.

The parties only dispute whether Whiteman discloses the requirement that "a platform is disposed on the shoulder." Patent Owner contends that Whiteman fails to disclose this requirement because the language of the claim should be construed to require the neck to join the container body and, thus, "the platform cannot be disposed between the shoulder and the neck," as is disclosed in Whiteman. PO Resp. 21. Patent Owner's argument is based on its proposed claim construction of the term "shoulder" as requiring a structure in which the neck joins the body." PO Resp. 14–15. For the reasons explained above, however, we are not persuaded by Patent Owner's proposed construction of "shoulder."

Rather, we agree with Petitioner that the position of the platform between the shoulder and the neck does not negate anticipation. The recited element of "a platform is disposed on the shoulder" is met by the combination of flat surface 11a and supporting structure 11, which sits upon a shoulder (beside reference numeral 10 in Figure 1 of Whiteman) that extends radially outward. Pet. 12–13; Pet. Reply 21. We further agree with Petitioner that Whiteman discloses each claim limitation of the challenged claims. Pet. 10–18.

Accordingly, for the reasons provided in the Petition, which we adopt, we determine that Petitioner has demonstrated by the preponderance of evidence that Whiteman anticipates claims 1–7 of the '993 patent. Pet. 10–18.

2. Anticipation of Claim 1–7 over Atkins

Petitioner contends that Atkins anticipates claims 1–7. Pet. 23–28. In support of its assertion that Atkins anticipates claims 1–7, Petitioner sets forth the following teachings of Atkins and provides a detailed claim chart explaining how each claim limitation is disclosed in Atkins. *Id.*

Atkins discloses "a capped bottle wherein the cap screws onto a neck portion of the bottle and which has an arrangement for ensuring the positive alignment of the cap on the neck of the bottle." Ex. 1003, 1:4–7.

Figure 3 of Atkins is reproduced below.

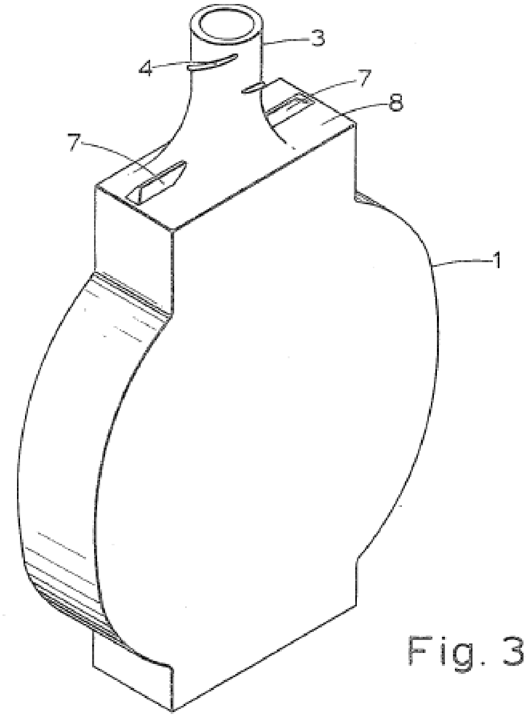
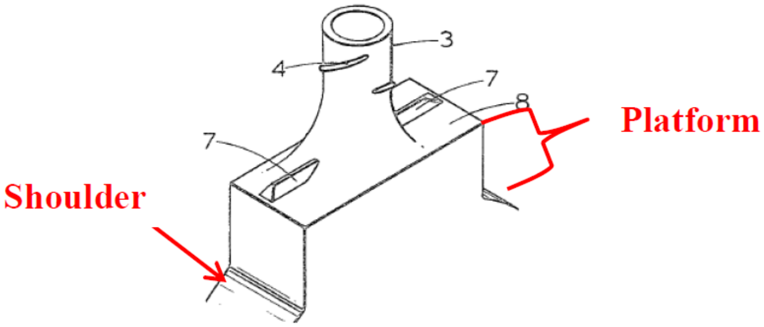


Fig. 3

Figure 3 shows bottle 1 with neck portion 3 having threads 4. *Id.* at 2:32–43. Threads 4 cooperate with the inner threads formed on the inside of a tubular socket portion of the cap. *Id.* Protuberances 7 in the form of ridges of inverted V-shaped cross-section are formed on shoulder 8 of bottle

1. *Id.* These protuberances engage matching notches located inside the cap when the cap is in position on the bottle (not shown). *Id.*

Petitioner contends that the recited element of "a platform is disposed on the shoulder" is taught by Atkins in the disclosure of a shoulder in Figure 3, wherein surface 8 may be considered a platform that sits upon the shoulder of bottle 1. Petitioner supports its argument with an annotated Figure 3, reproduced below:



Id. 25–28. Petitioner's annotated portion of Atkins's Figure 3 includes identifiers for the claimed shoulder and platform.

Patent Owner again contends that the feature Petitioner identified as a shoulder fails to meet the properly-construed claim because the shoulder does not join the neck of the container body. PO Resp. 23–24. As discussed above, we are not persuaded by this argument. The language of the claim does not require the neck to join the container body and, thus, does not preclude the insertion of the platform between the neck and shoulder. Rather, claim 1 recites: "wherein an outer surface of an upper end of the container body *extends below the neck radially outward* to define a shoulder."

Rather, we agree with Petitioner that the position of the platform between the shoulder and the neck does not negate anticipation. The recited element of "a platform is disposed on the shoulder" is met by the combination of flat surface 8 and supporting structure, which sits upon a shoulder that extends radially outward, as depicted in Petitioner's annotated portion of Atkins's Figure 3, above. Pet. 27–28; Reply 21. We further agree with Petitioner that Atkins discloses each claim limitation of the challenged claims. Pet. 24–26.

Accordingly, for the reasons provided in the Petition, which we adopt, we determine that Petitioner has demonstrated by the preponderance of evidence that Atkins anticipates claims 1–7 of the '993 patent. Pet. 23–28.

3. *Obviousness of Claims 1–7 Over the Combination of Whiteman and Atkins*

Petitioner contends that claims 1–7 would have been obvious in view of the combination of Whiteman and Atkins. Pet. 18–22, 29–30. With regard to claims 1–5 and 7, however, Petitioner argues that the elements of these claims are expressly taught by Atkins. *Id.* at 29 ("Atkins alone renders at least claims 1–5 and 7 obvious."). In its obviousness ground, however, Petitioner provides additional argument with regard to claim 6, which we address below.

Claim 6 depends from claims 1, 4, and 5. Claims 4–6 are reproduced below:

> 4. A container for a spillproof drinking assembly according to claim 1, wherein the snap projection extends radial from a first end adjacent to an outer end of the shoulder.
>
> 5. A container for a spillproof drinking assembly according to claim 4, wherein the snap projection extends radially inward to a

> second end adjacent to an inner end of the shoulder adjacent to the neck.
>
> 6. A container for a spillproof drinking assembly according to claim 5, wherein a gap is provided between the second end of the snap projection and the neck.

With regard to claims 6, Petitioner additionally argues that "[e]ven if Atkins is construed as not having a 'gap' between the inside edge of snap projection 7 and the neck 3 as recited in claim 6, such a configuration is shown in Whiteman." *Id.* at 29. Petitioner further contends that "[i]t would have been a routine matter of design choice to a person of ordinary skill in the art to modify the bottle of Atkins to add a space between the snap projection 7 and the neck 3 as taught by Whiteman," and that "[a] person of ordinary skill in the art would recognize that combining these prior art elements according to known methods would yield the predictable results of the container claimed in the '993 patent." Pet. 29–30.

Patent Owner responds as follows:

> As described above, both Whiteman and Atkins fail to teach or meet the properly construed limitations of the '993 Patent's claims. And because Whiteman and Atkins fail to teach or meet the patent's limitations for the exact same reasons, a combination of Whiteman and Atkins remains deficient for the same reasons that each individual reference is deficient. Moreover, the instituted combination of Whiteman and Atkins for claim 1 focuses solely on the "snap projection" limitation. For the purposes of this proceeding, Munchkin has not argued that such a snap projection is missing from Whiteman or Atkins. As such, Atkins adds nothing to the disclosure of Whiteman.

PO Resp. 24.

As discussed above, we are not persuaded by Patent Owner's arguments based on its proposed claim construction of the term "shoulder."

Patent Owner make no further argument to rebut Petitioner's obviousness ground. We further find persuasive Petitioner's identification of the features of claims 1–7 as corresponding to features described in Atkins and Atkins, as well as Petitioner's asserted rationale for combining Whiteman and Atkins with respect to claim 6. Pet. 23–28

As set forth above in our discussion of Petitioner's anticipation ground, we determine Petitioner has demonstrated by the preponderance of evidence that Atkins anticipates claims 1–7 of the '993 patent for the reasons set forth in the Petition. *See id*. The same issues are dispositive of Petitioner's instituted obviousness ground. *In re McDaniel*, 293 F.3d 1379, 1385 (Fed. Cir. 2002) ("It is well settled that 'anticipation is the epitome of obviousness.'"), *quoting In re Fracalossi*, 681 F.2d 792, 794 (CCPA 1982).

Accordingly, for the reasons provided in the Petition, which we adopt, we determine that Petitioner has shown by a preponderance of the evidence that claims 1–7 are unpatentable under 35 U.S.C. § 103(a) for obviousness in view of the disclosures of Whiteman and Atkins. Pet. 18–22, 29–30.

III. CONTINGENT MOTION TO AMEND

Patent Owner filed a Contingent Motion to Amend, requesting substitution of various claims in the event certain claims in the '993 patent were found to be unpatentable, which has come to pass as just explained. Having reviewed the briefing on Patent Owner's Contingent Motion to Amend, we determine that there are dispositive issues under 35 U.S.C. § 316(d)(3) and 37 C.F.R. § 42.121(a)(2)(ii) that preclude entry of the proposed substitute claims. We first discuss the relevant principles of law and then address the issue of whether the proposed amendment enlarges the scope of the claim of the ’993 patent.

A. Principles of Law – Motion to Amend in Inter Partes Review

In an *inter partes* review, a patent owner may file a motion to amend to propose a reasonable number of substitute claims for each challenged claim. 35 U.S.C. § 316(d)(1)(B); 37 C.F.R. § 42.121(a)(3). Among other requirements, a patent owner must show support in the original disclosure of the patent for each claim that is added or amended. 37 C.F.R. § 32.121(a)(b)(1). Furthermore, the proposed substitute claims in *an inter partes* review “may not enlarge the scope of the claims of the patent.” 35 U.S.C. § 316(d)(3); 37 C.F.R. § 42.121(a)(2)(ii).

As the moving party, Patent Owner has the burden to establish it is entitled to the requested relief. 37 C.F.R. § 42.20(c); *MasterImage 3D, Inc. v. RealD Inc.*, Case IPR2015-00040, slip op. at 4 (PTAB July 15, 2015) (Paper 42) (precedential) (indicating a patent owner, as movant, bears “the ultimate burden of persuasion . . . to demonstrate the patentability of the amended claims”); s*ee Microsoft Corp. v. Proxyconn, Inc.*, 789 F.3d 1292, 1306 (Fed. Cir. 2015) (indicating 37 C.F.R. § 42.20(c) is “plainly applicable to motions to amend filed during [*inter partes* reviews]”); *but see In re Aqua Products*, No. 2015-1177, 2016 WL 4375651, at *1 (Fed. Cir. Aug. 12, 2016) (order granting rehearing *en banc* to address burdens of persuasion and production regarding motions to amend under 35 U.S.C. § 316(d) and vacating *In re Aqua Products,* 823 F.3d 1369 (Fed. Cir. 2016)).

B. Nature of Substitute Claims and Parties’ Contentions

Patent Owner proffers claim 8 as a substitute for claim 1 of the ’993 patent. Mot. Amend, Claim App’x. Substitute claim 8 is reproduced below:

> 8. A container for a spillproof drinking assembly, comprising:
> a container body having a first upper open end and a lower closed end;
>
> a neck extending cylindrically outward and away from the first upper end of the container body, the neck including at least one threaded fastener on an outer surface of the neck to receive a cap,
>
> wherein an outer surface of an upper end of the container body extends below the neck radially outward to define a shoulder;
>
> a platform is disposed on the shoulder; and
>
> a snap projection is disposed on the platform, wherein the snap projection extends upward, away from the platform to a predetermined height;
>
> wherein "an outer surface of an upper end of the container body extends below the neck radially outward to define a shoulder" means "an outer surface of an upper end of the container body extends down from the neck radially outward to define an outwardly-extending area having a top surface that slopes downwardly in a non-concave manner, the shoulder being located where the neck joins the container body"; and
>
> wherein "a platform is disposed on the shoulder" means "a structural feature distinct from the shoulder and the container body and disposed on the shoulder to change the contour of the shoulder".

Id. (emphasis added to show text added to claim 1).

Patent Owner characterizes the substitute claim as conforming to "the claim constructions adopted by the United States District Court for the Central District of California after a lengthy claim construction process in *Munchkin, Inc. v. Luv N' Care, Ltd.*, No. 13-cv-06787-JEM (C.D. Cal. Aug. 27, 2015), Dkt. No. 101. (Exh. 2017)." *Id.* at 2. Patent Owner further asserts that substitute claim 8 would not enlarge or change the scope of the claims as properly construed by the district court. *Id.* at 2, 6–9. Patent Owner asserts that substitute claim 8 is supported by the '993 patent (*id.* at

9–11), and that the substitute claim 8 is further distinguished over the material prior art (*id.* at 11–24). Patent Owner also points to the original specification of the ’993 patent as fully supporting the substitute claims. *Id.* at Claim App’x 3–8.

Petitioner asserts that the substitute claim fails to meet the procedural requirements concerning motions to amend set forth in the above-cited cases. In particular, Petitioner argues that Patent Owner’s Motion to Amend should be denied because substitute claim 8 is broadening, lacks written description support, lacks support in the original disclosure, and is indefinite. Opp. Mot. 1.

Additionally, Petitioner asserts that Whiteman, Atkins, and other prior art of record are anticipatory references or otherwise renders substitute claim 8 obvious. Opp. Mot. 14–25.

C. Whether Substitute Claim 8 is Broadening

Petitioner contends that the proposed amendment would enlarge the scope of the “platform” limitation because the proposed amended claim expands the meaning of “platform” to “*any* structural feature that changes the contour of the shoulder.” Opp. Mot. 5. Petitioner cites to our Decision to Institute in which we adopted its broadest reasonable interpretation of the term “platform” as “a raised level surface” and argues that the plain meaning of “platform” requires the structure to be flat. *Id.* at 5 (citing Dec. 7); *see also* Pet. 5 (citing Ex. 1111). Petitioner further argues that substitute claim 8 would encompass a platform in the form of a pyramid even though a pyramid is not a level surface. Specifically, Petitioner provides as follows:

> According to [Patent Owner]'s definition, even a pyramid would constitute a "platform" within Claim 8. However, a pyramid clearly is not within the scope of claim 1. Under any sensible interpretation of "platform," a pyramid is not a *level* surface. But according to proposed Claim 8, because a pyramid would change the contour of the shoulder (putting aside indefiniteness queries for the moment), it would become a "platform."

Id. at 5–6.

Patent Owner argues that the specification states that the platform "is preferably substantially flat," and thus necessarily allows the platform to not be flat. Reply Mot. Amend 3 (citing Ex. 1001, 6:18–19). Patent Owner directs our attention to dependent claim 3 of the '993 patent, and argues that the recitation in claim 3 of "platform that is substantially flat" (Ex. 1001, 10:26), "gives rise to an 'especially strong' presumption that claim 1 does not require such flatness." *Id.* (citing *InterDigital Comms., LLC v. ITC*, 690 F.3d 1318, 1324–25 (Fed. Cir. 2012)). Patent Owner further argues as follows:

> [Petitioner] further argues that a pyramid would qualify as a platform under claim 8, but not under claim 1. But the construction of the "platform" incorporated into claim 8 does not allow for structures that are not platforms, as [Patent Owner] did not excise the term "platform" from the claim. Instead, the construction merely brings clarity to how and where the platform appears. And claim 8 still requires a "snap projection" that is "disposed on the platform" and "extends upward, away from the platform." Thus, a pyramid that renders this impossible would not qualify as a "platform" under the language of the claim.

Reply Mot. Amend 3.

We find Petitioner to have the more persuasive position. Patent Owner's proposed amendments attempt to define expressly the phrase "a platform is disposed on the shoulder" recited in original claim 1. In doing so, Patent Owner enlarges the scope of the platform element of the claim such that the "platform" may be any structural feature. There is insufficient evidence of record to support a conclusion that a person of ordinary skill in the art would equate a "platform" with the more abstract description of a structural feature that merely changes the contour of the shoulder. Rather, the evidence of record suggest that a platform, as understood by a person of ordinary skill in the art, would at least be substantially flat, if not indeed "a raised level surface," which is the dictionary definition of the term "platform" presented by Petitioner. Ex. 1001, 6:18–19; Pet. 5 (citing Ex. 1111[5]); *see also*, Ex. 1001, 8:7–10 (describing a raised platform). Accordingly, we deny Patent Owner's Motion to Amend because the proposed amendments set forth in substitute claim 8 enlarge the scope of original claim 1.

D. Other Challenges to Proposed Substitute Claims

Petitioner contends also that the proposed substitute claims are indefinite, lack written description support, and are unpatentable over prior art on record. Opp. Mot. Amend 6–12. Because we deny Patent Owner's motion to amend on the basis that the proposed amendments enlarge the scope of the claims of the patent, we do not reach or decide Petitioner's other challenges with respect to substitute claim 8.

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[5] The *New Oxford American Dictionary* (3d ed.) (2010).

IV. ORDER

For the reasons given, it is

ORDERED that claims 1–7 of the ’993 Patent are held unpatentable;

FURTHER ORDERED that Patent Owner’s Motion to Amend is denied; and

FURTHER ORDERED that, because this is a Final Written Decision, parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

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US008739993B2

(12) **United States Patent**
Dunn et al.

(10) **Patent No.: US 8,739,993 B2**
(45) **Date of Patent: Jun. 3, 2014**

(54) **CONTAINER FOR SPILLPROOF CONTAINER ASSEMBLIES**

(75) Inventors: **Steven B. Dunn**, Beverly Hills, CA (US); **Mark A. Hatherill**, Beverly Hills, CA (US); **Rodolfo Gastelum**, San Pedro, CA (US); **Won Song**, Porter Ranch, CA (US)

(73) Assignee: **Munchkin, Inc.**, Van Nuys, CA (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **13/192,438**

(22) Filed: **Jul. 27, 2011**

(65) **Prior Publication Data**

US 2012/0305577 A1 Dec. 6, 2012

Related U.S. Application Data

(60) Provisional application No. 61/493,132, filed on Jun. 3, 2011.

(51) **Int. Cl.**
B65D 1/40 (2006.01)

(52) **U.S. Cl.**
USPC **215/330**

(58) **Field of Classification Search**
USPC 215/330, 331
See application file for complete search history.

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(Continued)

Primary Examiner — Steven A. Reynolds
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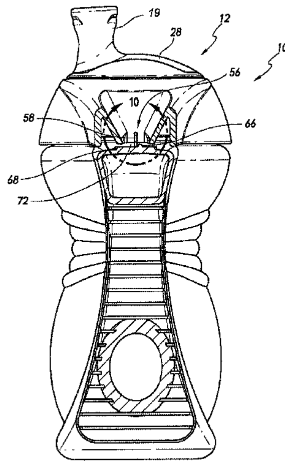
(74) *Attorney, Agent, or Firm* — Robert Z. Evora, Esq.

(57) **ABSTRACT**

A spillproof container assembly includes a container body and a lid body that is adapted to be fastened onto the container body by screwing. Both the container body and the lid body are advantageously provided with outwardly extending wing portions for enhancing the grippability of and properly orienting the container assembly for small children. The outwardly extending wing portions of the container body are aligned with the outwardly extending wing portions of the lid body. The lid body is provided with an acoustic waveguide, and sound generating structure is provided in communication with the acoustic waveguide for creating an audible feedback when the lid body has been tightened onto the container body to a predetermined relative position and tightness. The acoustic waveguide further functions as a viewing port that provides a visual feedback so that a user can visually verify the position of the lid body with respect to the container body. In addition, the wing portions of the lid body are designed to slightly interfere with and cam over respective upper platforms on the wing portions of the container body so that a user will be provided with a tactical feedback as a lid body is approaching an optimal amount of tightness with respect to the container body.

7 Claims, 19 Drawing Sheets



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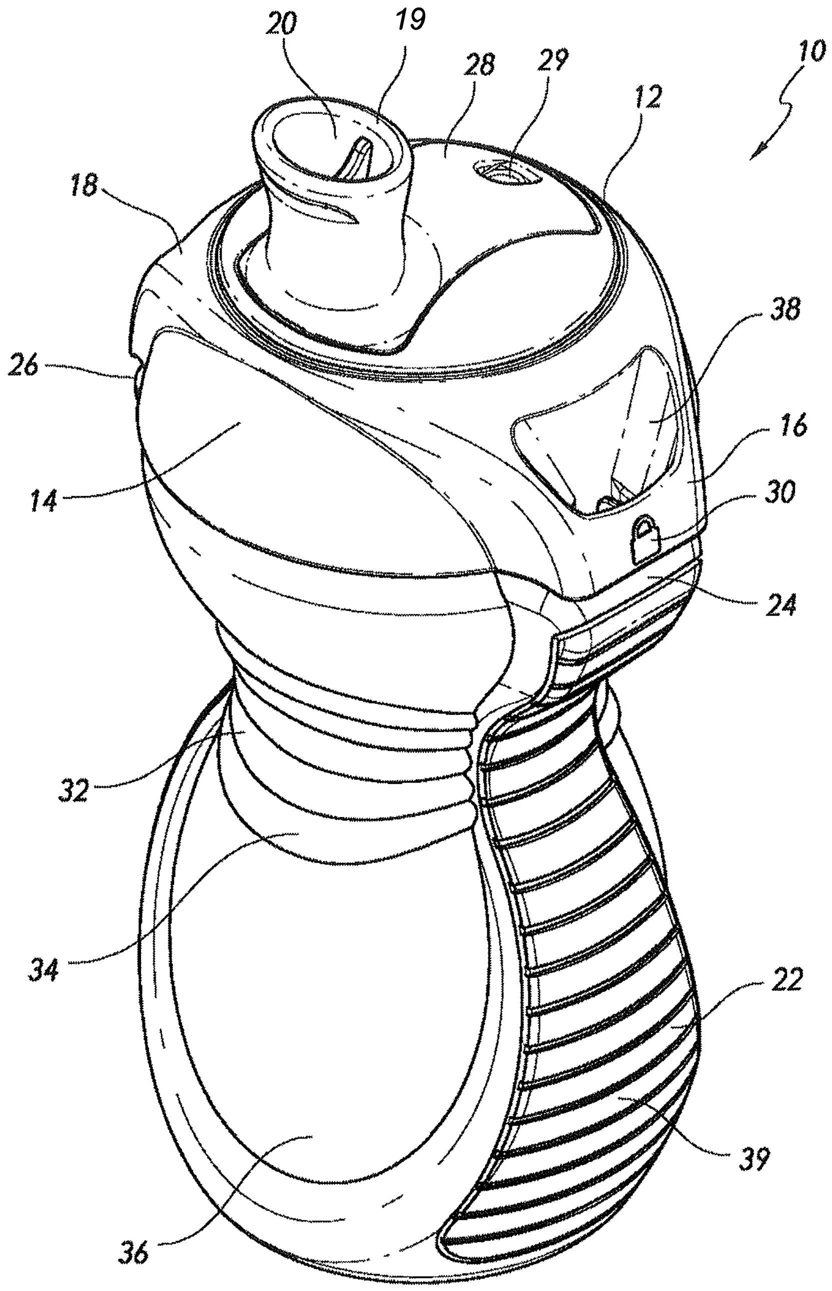
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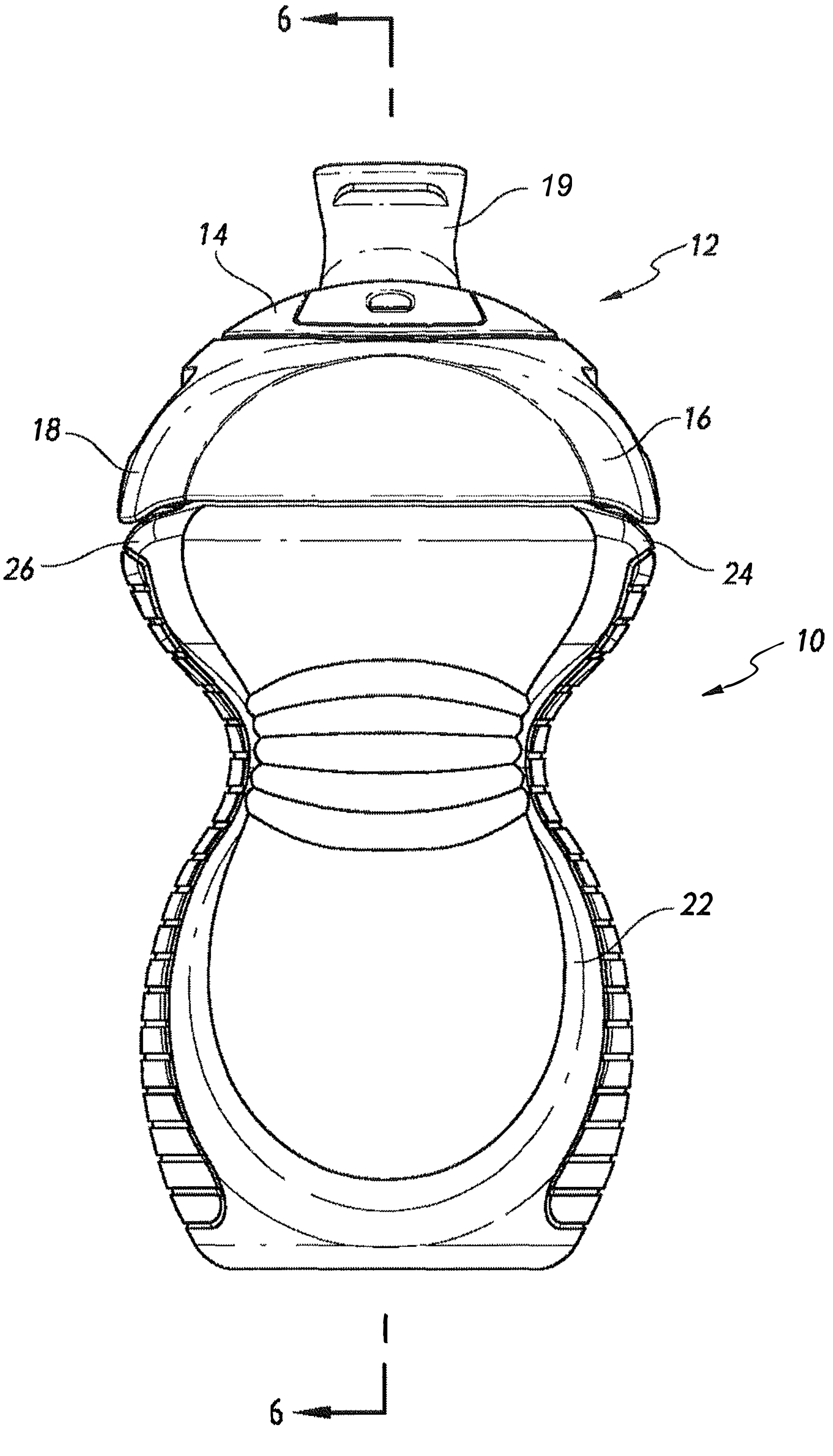
FIG. 1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6

FIG. 2

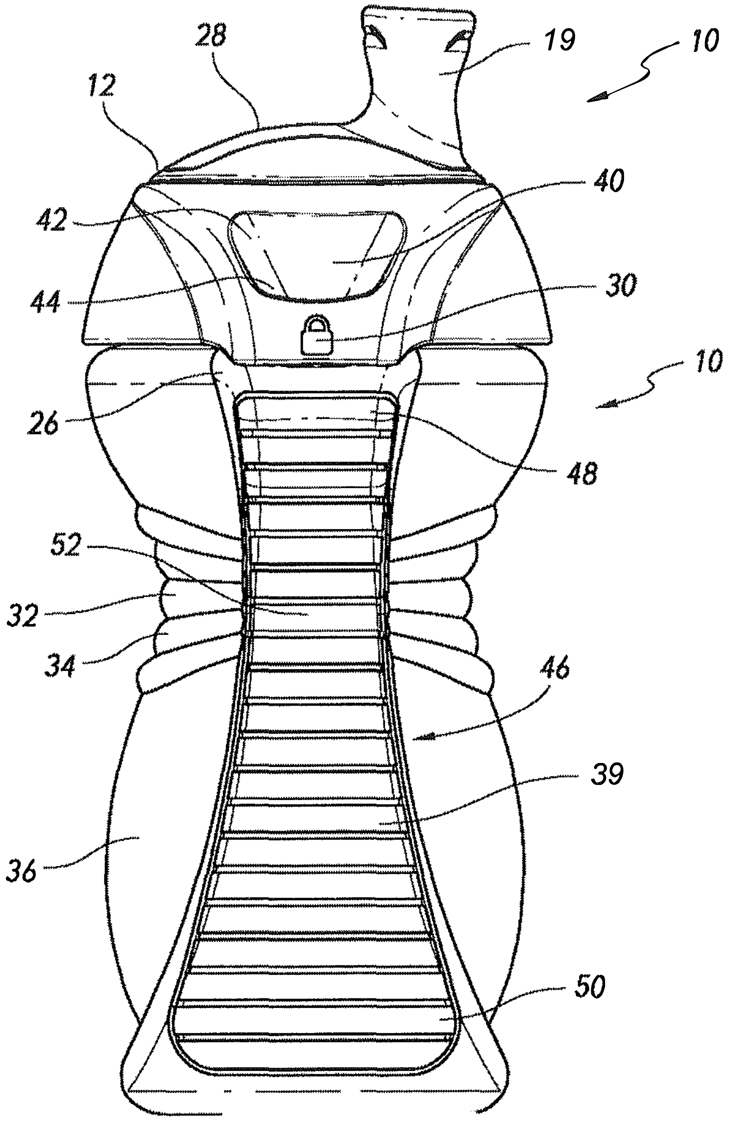
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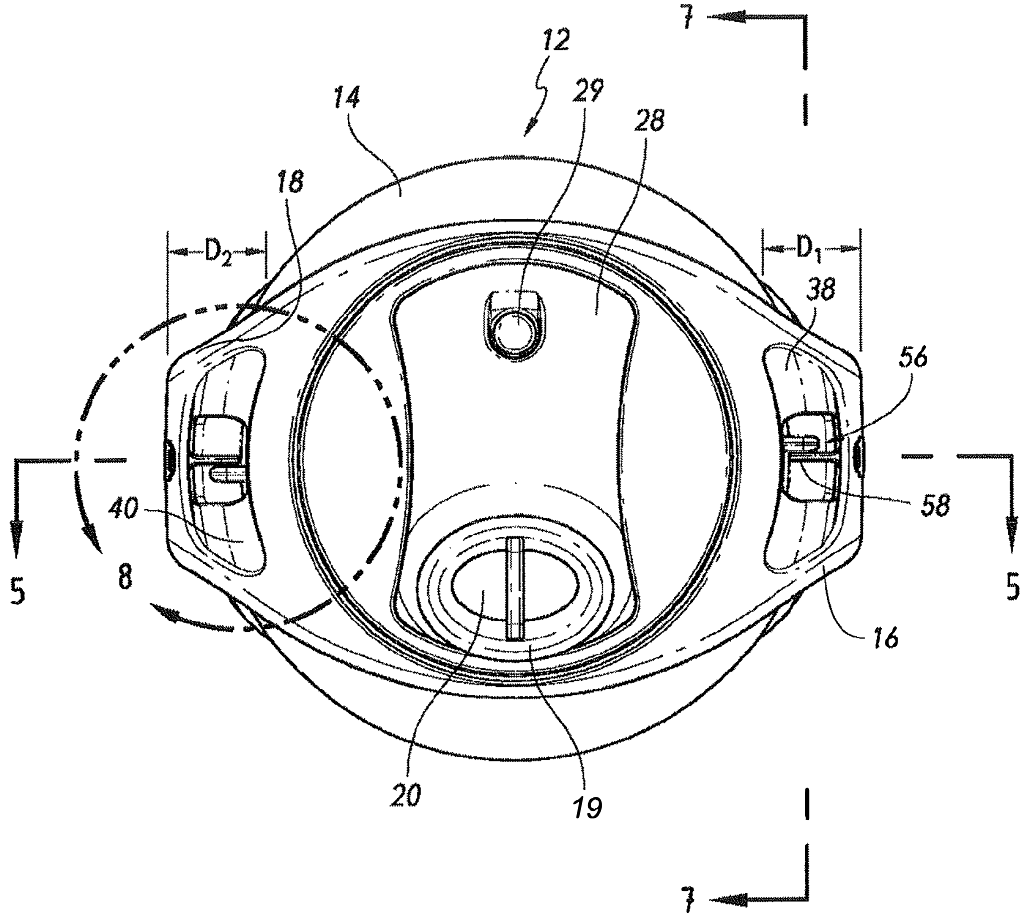
FIG. 3



7
12
29
14
28
18
D2
D1
38
56
5
40
58
5
8
16
20
19
7

FIG. 4

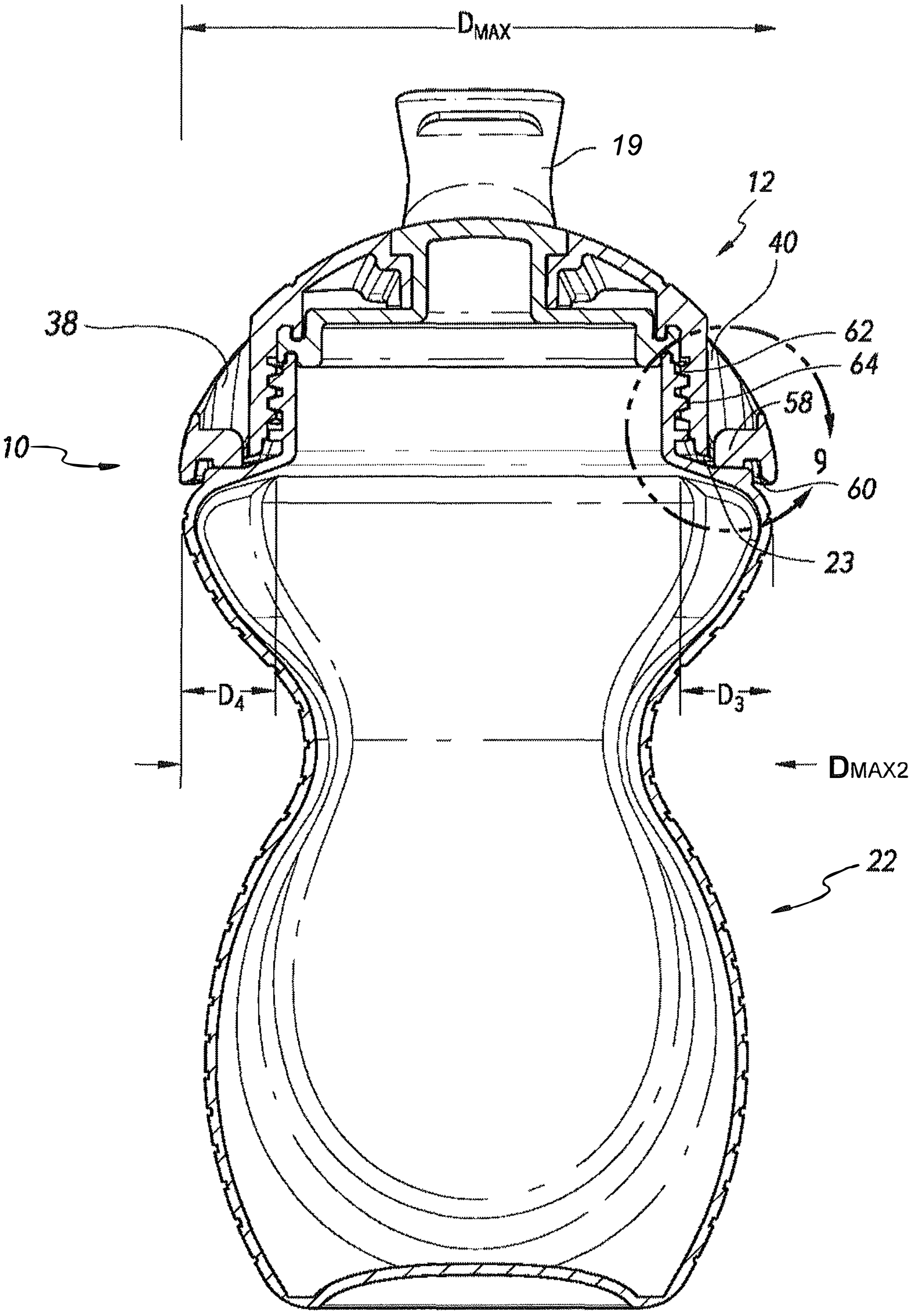
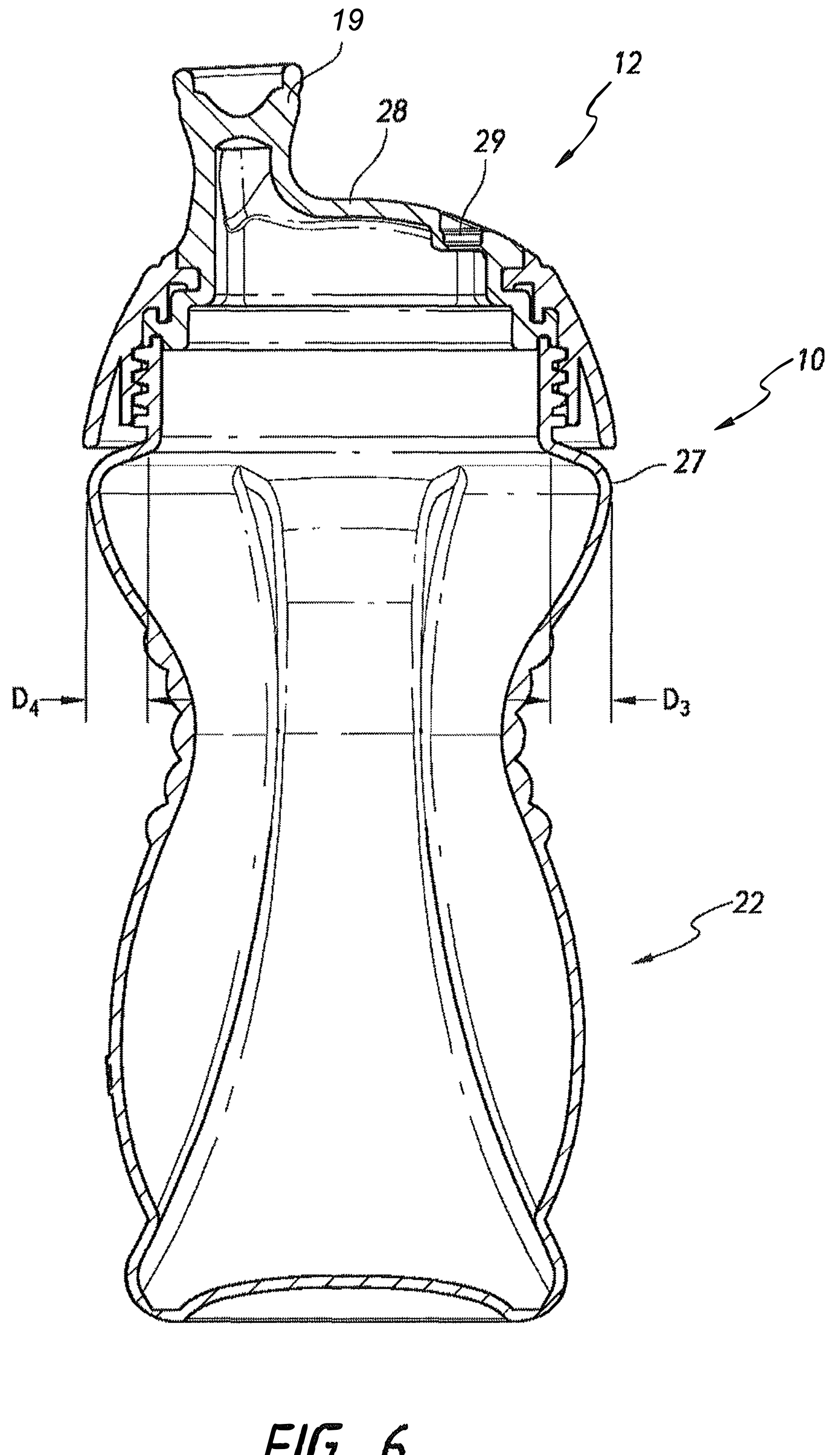

DMAX
19
12
40
38
62
64
58
10
9
60
23
D4
D3
DMAX2
22

FIG. 5


19
12
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D4
D3
22

FIG. 6

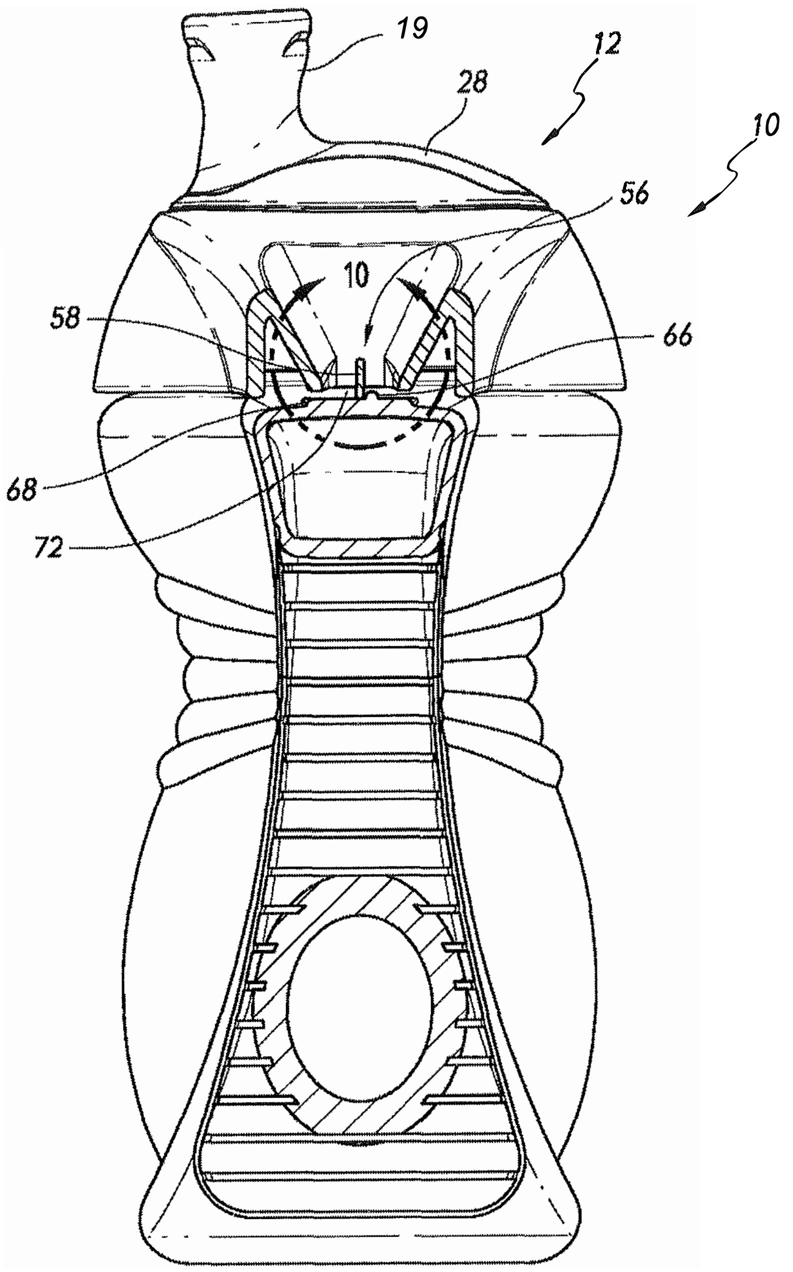

19
12
28
10
56
10
58
66
68
72

FIG. 7

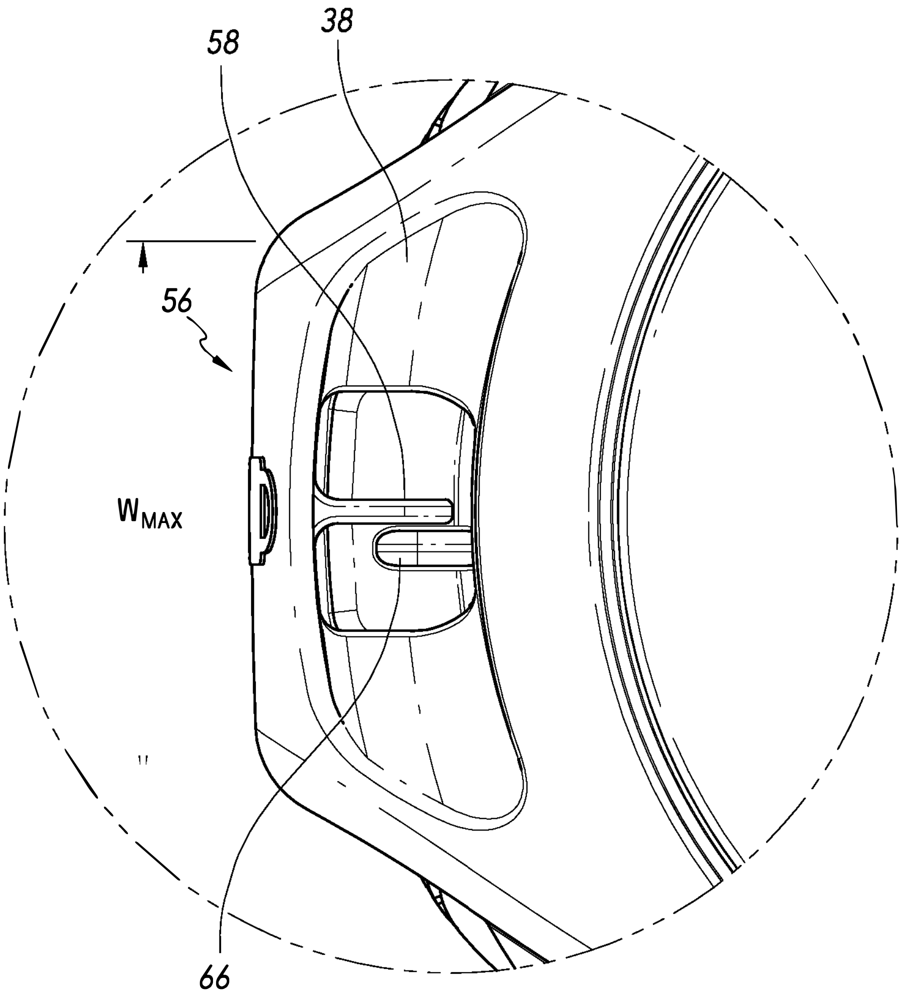
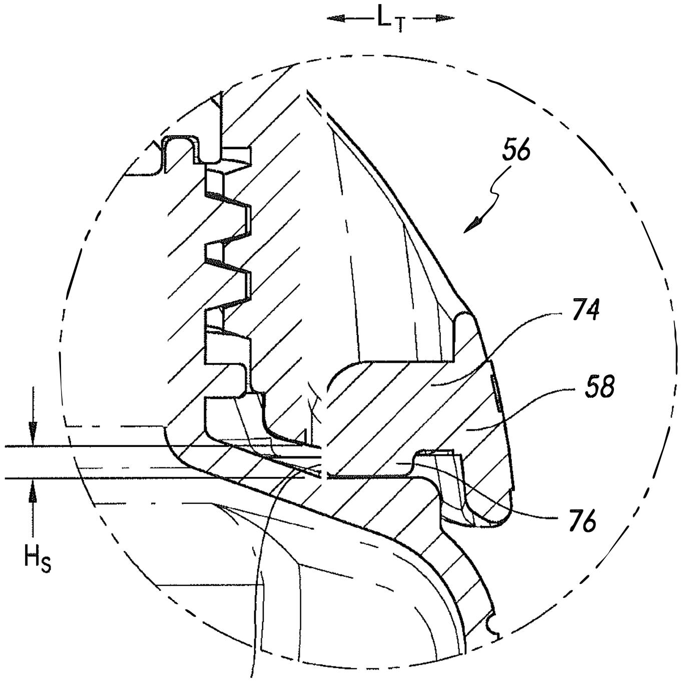
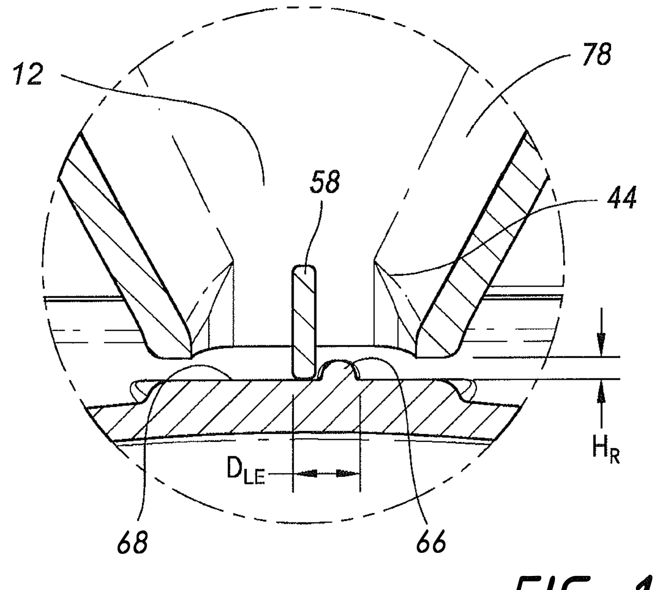

58
38
56
W_{MAX}
66

FIG. 8



L_T
56
74
58
76
H_S
66

FIG. 9



12
78
58
44
H_R
D_{LE}
68
66

FIG. 10

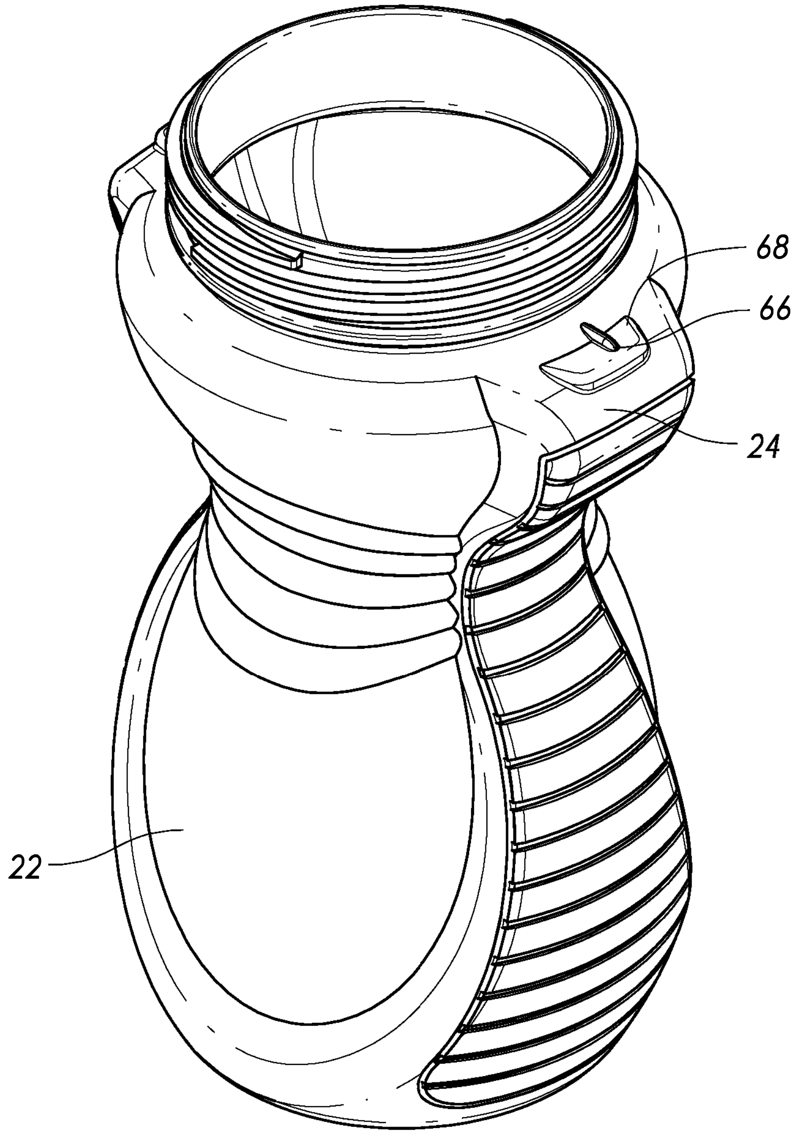


FIG. 11

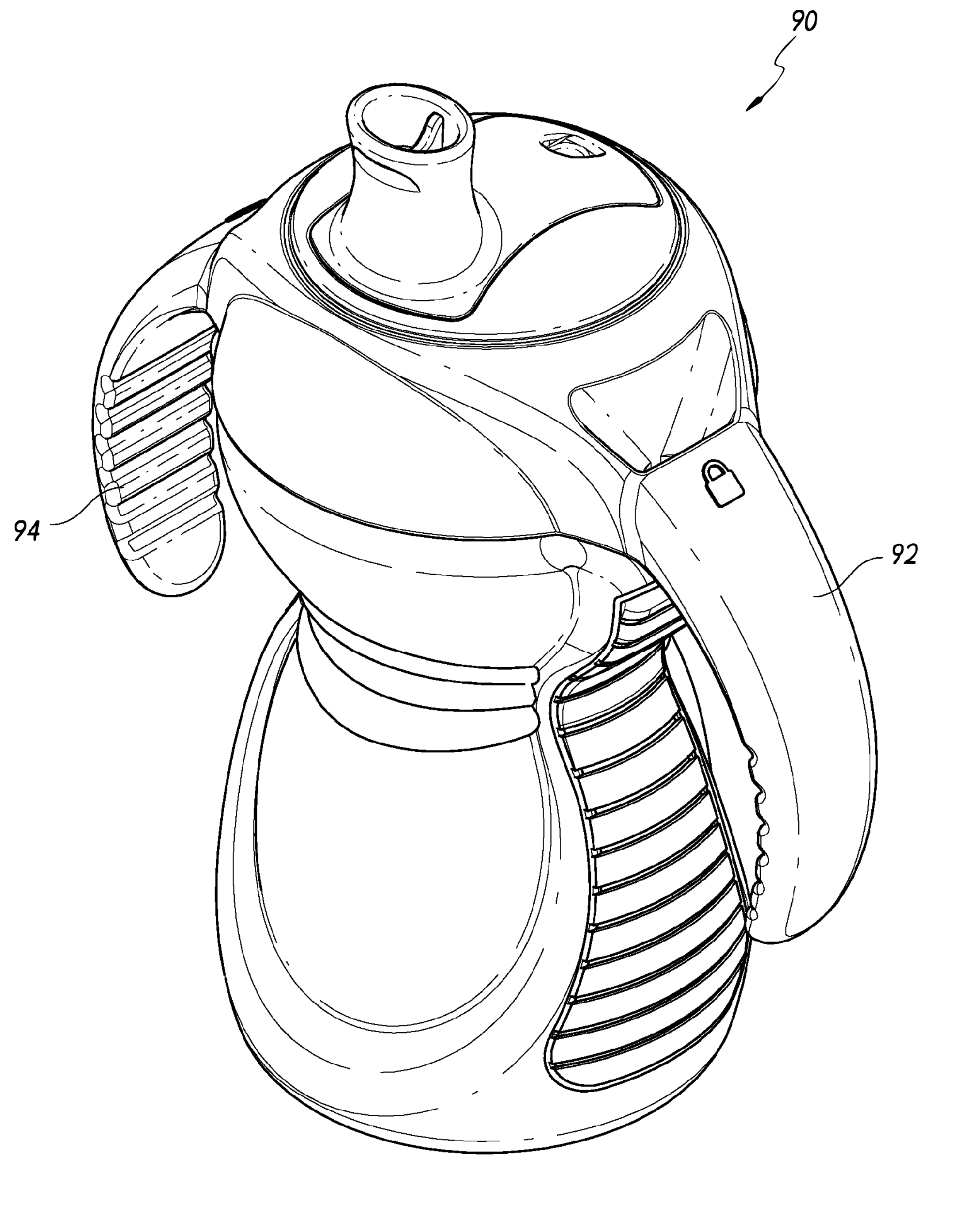
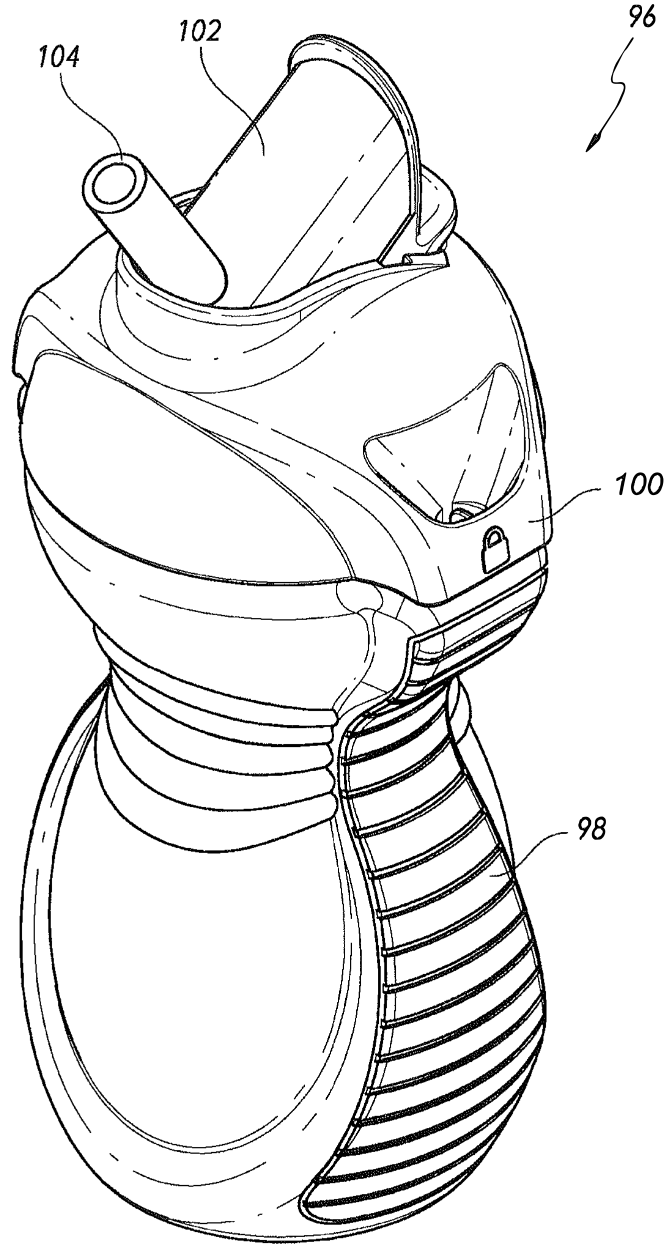


FIG. 12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98

FIG. 13

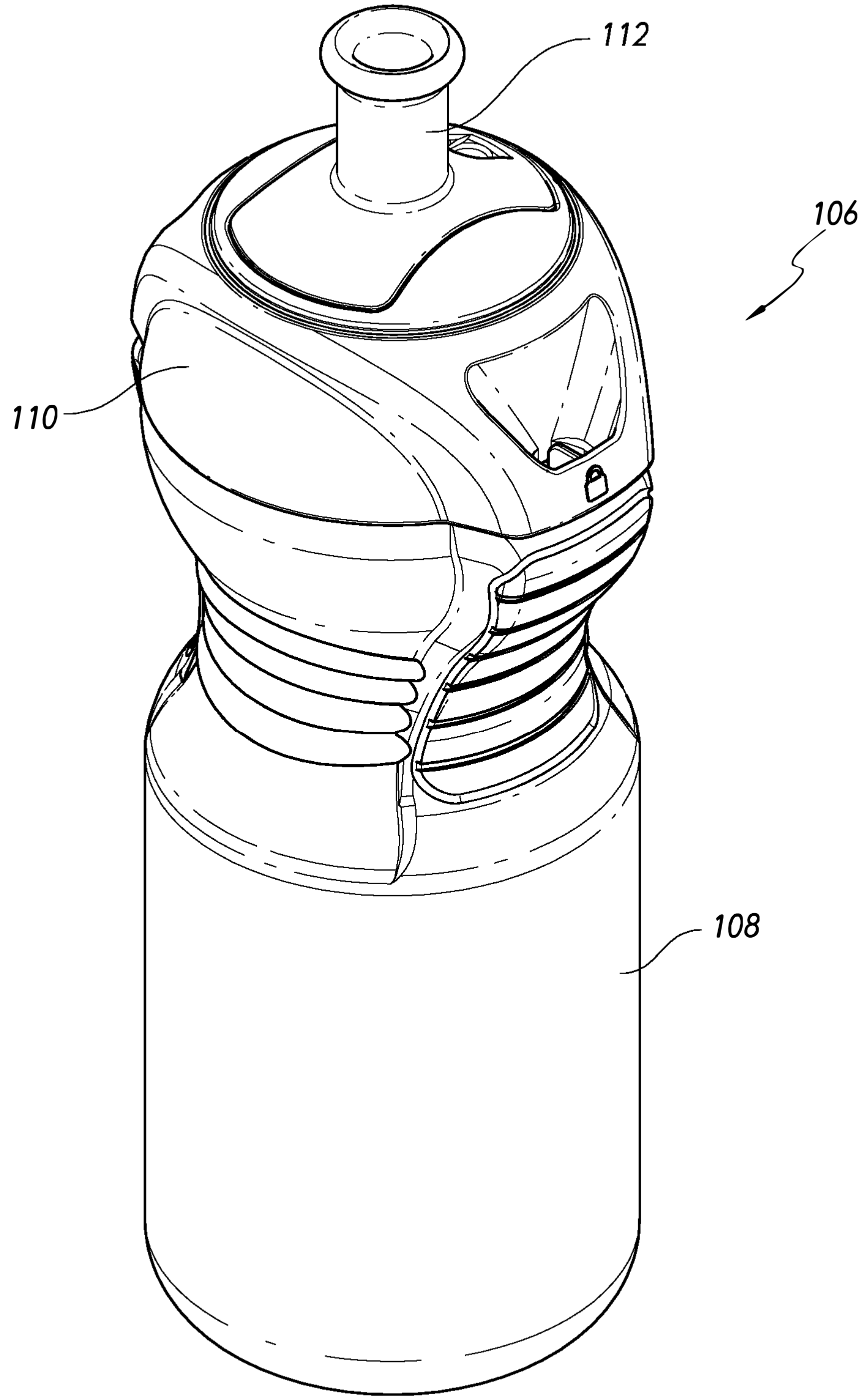
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FIG. 14

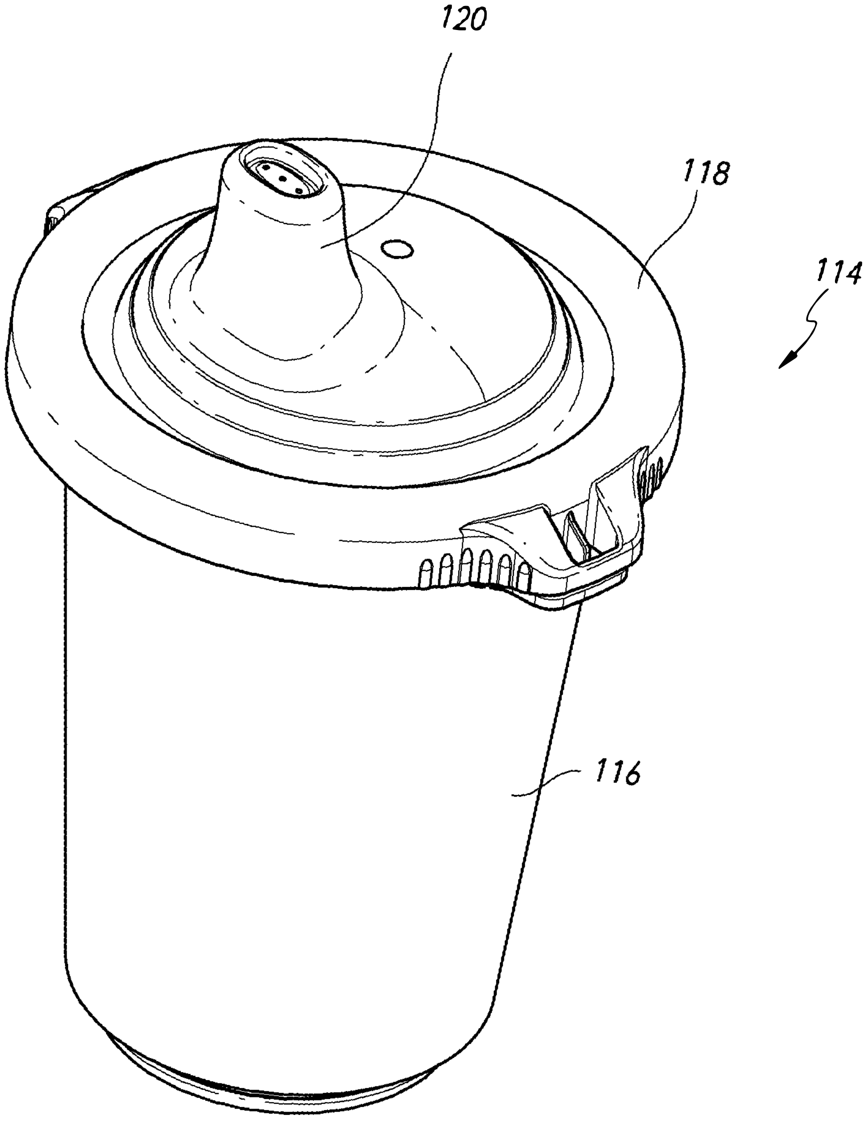
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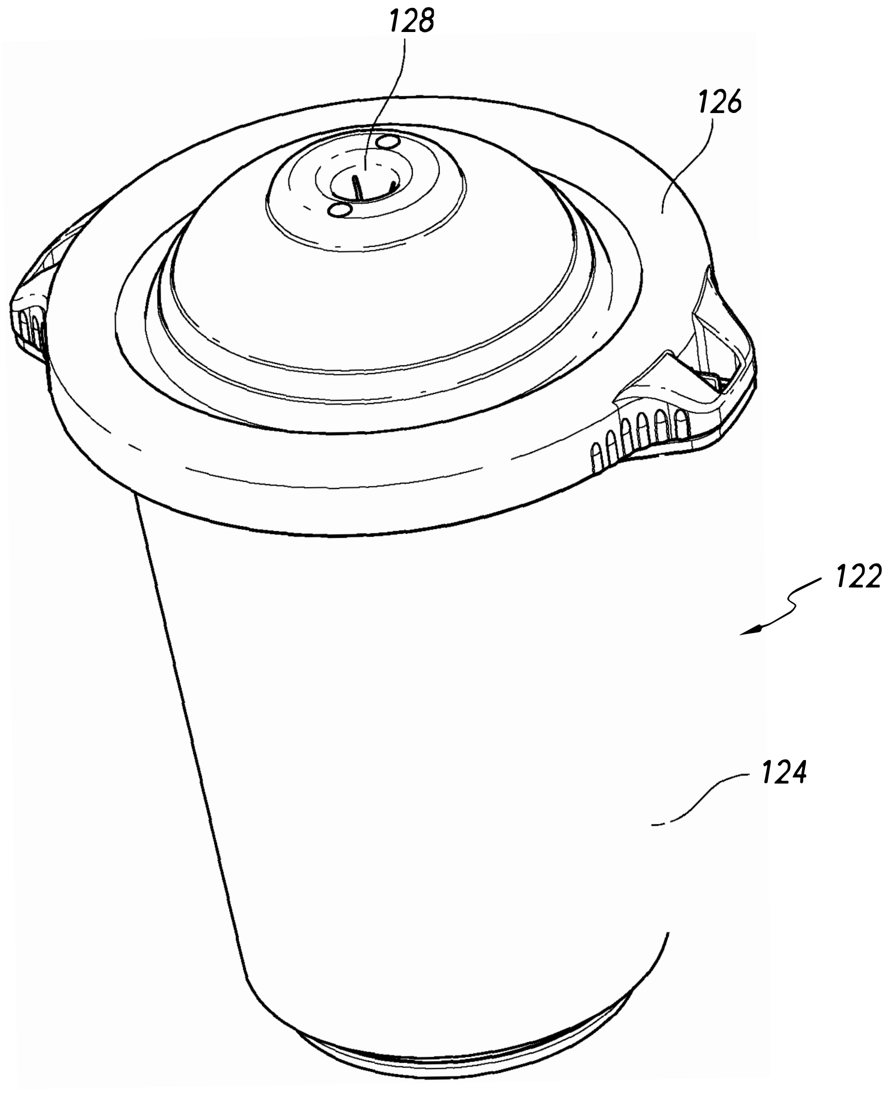
FIG. 15


128
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122
124

FIG. 16

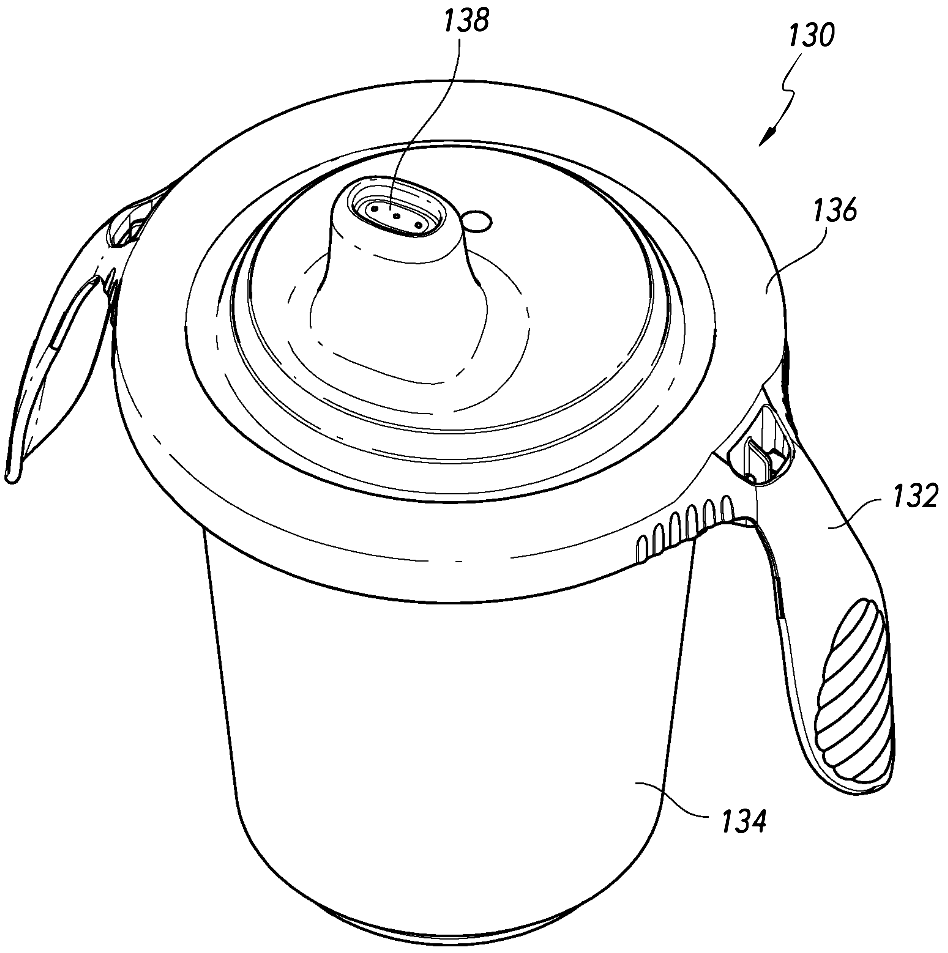
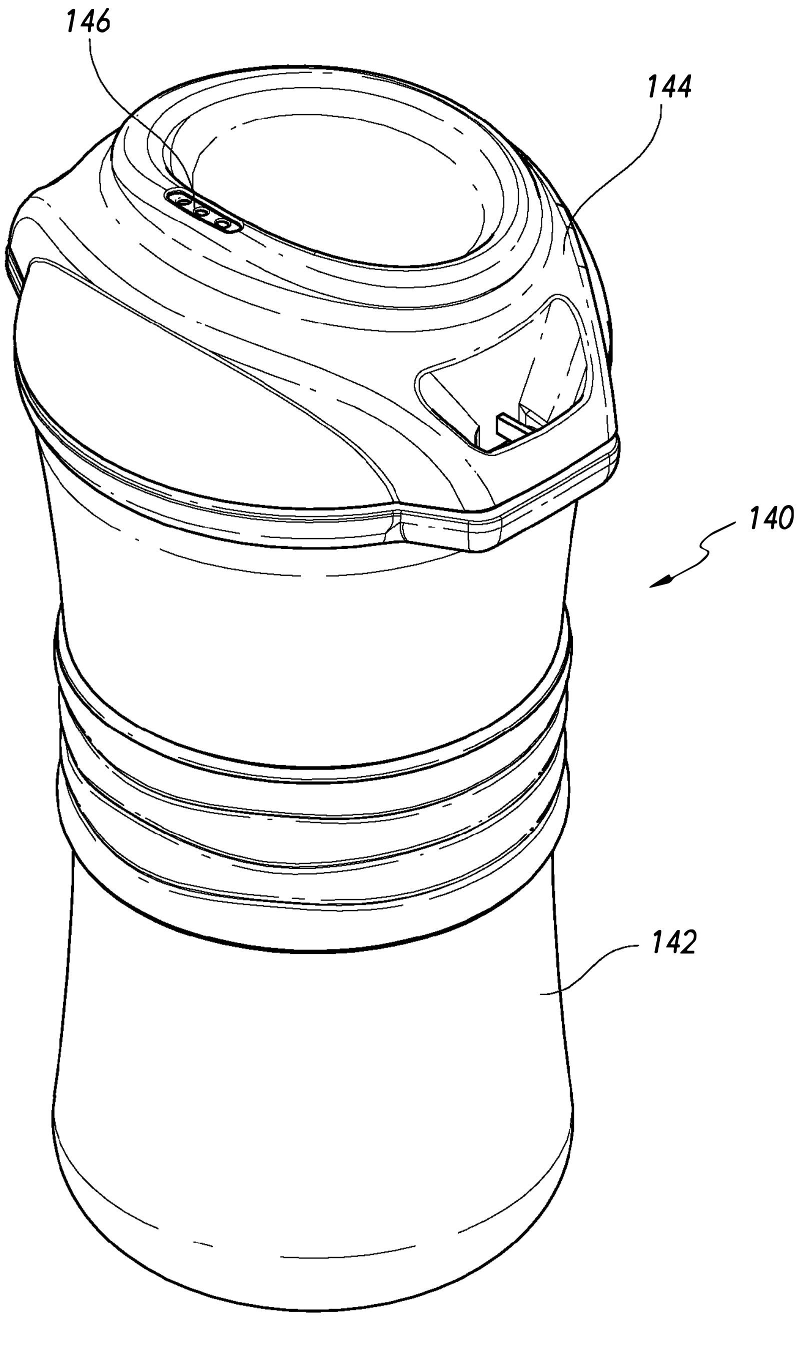

138
130
136
132
134

FIG. 17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144
140
142

FIG. 18

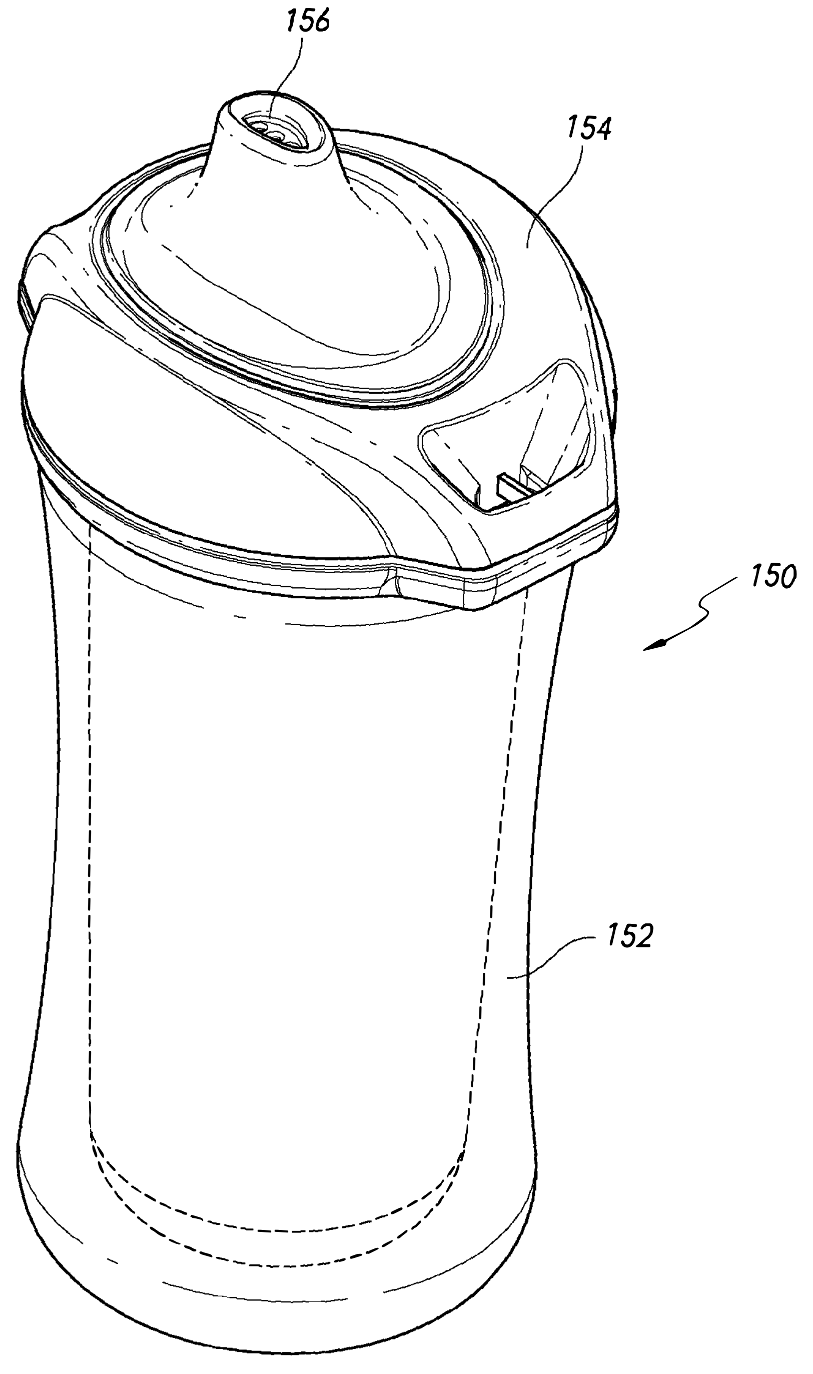
156
154
150
152

FIG. 19

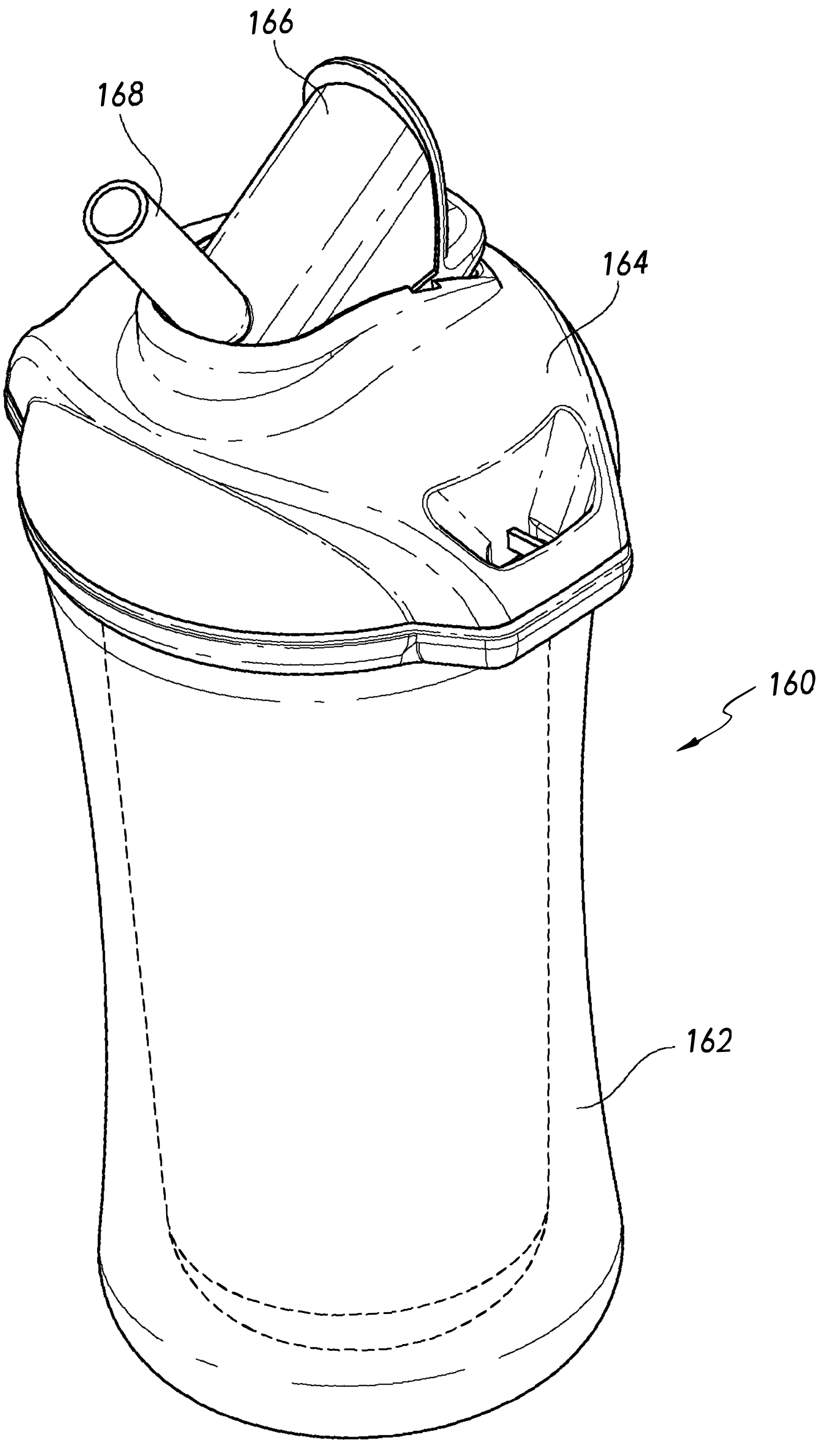
166
168
164
160
162

FIG. 20

CONTAINER FOR SPILLPROOF CONTAINER ASSEMBLIES

This is a nonprovisional of U.S. provisional patent application 61/493,132, filed Jun. 3, 2011, the entire disclosure of which is hereby incorporated by reference as if set forth fully herein.

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates generally to the field of feeding accessories, and more particularly to spillproof container assemblies, such as those that can be used as training cups for toddlers.

2. Description of the Related Technology

A wide variety of spillproof container assemblies, such as those that are used as training cups for toddlers, have been commercially available for decades. Such products typically include a container body such as a cup or baby bottle and a lid that is constructed and arranged to form a seal with respect to the container body. The lid is provided with an opening to permit controlled passage of fluid from the cup body for drinking purposes.

In some products, the lid is provided with a valve mechanism that seals the opening unless drinking suction is applied to the opening by a user, or that seals the opening until the drinking cup assembly is inverted. In other products, the drinking opening in the lid is unrestricted, but a valve is provided within a second opening in the lid to impede the entry of makeup air into the cup body, except when suction is being applied to the drinking opening.

Another type of spillproof container assembly includes a lid that is provided with an integral flexible straw that is movable between a crimped or folded position in which the lumen of the straw is substantially closed and an extended position in which the lumen is open throughout the length of the straw. In the latter position, free passage of fluid is permitted through the straw, enabling a user to drink through the straw. In other products, the lid is provided with an integral drinking spout that extends upwardly from the rest of the lid.

For purposes of this document, a spill resistant container assembly shall be considered spillproof. A spill resistant container assembly is typified by an unrestricted opening in the lid that is sized small enough to limit the amount of fluid that can be spilled if the container assembly is dropped or inverted.

In most spillproof drinking cup assemblies, the lid and the cup body are provided with mating helical threads to enable the lid to be securely fastened onto the cup body by screwing. If the lid is not fully screwed onto the cup body, both leakage of fluid and undesirable entry of makeup air into the cup body can occur. On the other hand, if the lid is overtightened with respect to the cup body, undesirable deformation of the threads and sealing surfaces of the product can occur, and the lid can be a difficult to remove by the consumer. A lid that is difficult to remove because it is too tightly fastened onto the cup body can itself lead to spilling of the contents of the cup body as the user struggles to remove the lid.

Small children in the age range that typically use training cups do not have the hand eye coordination of older children or adults. The lid portion of most spillproof drinking cup assemblies that includes the drinking straw or spout is typically asymmetrical, requiring a small child to hold the drinking cup assembly during drinking in an orientation that properly positions the straw or drinking spout with respect to his or her mouth. It is difficult for many small children to securely

grip many commercially available training cups while they are drinking, and to achieve and maintain the optimum orientation for drinking.

In addition, both the lids and the cup bodies of most commercially available spillproof cup assemblies are typically substantially cylindrical in transverse cross-section. They can be difficult for a caregiver to grip during tightening and untightening of the lid onto the cup body, particularly if the article is wet with rinse water or condensate.

There is therefore a need for a spillproof container assembly that provides guidance to consumers as to the proper degree of tightening between the lid and the container body. There is also a need for a spillproof drinking cup assembly that is constructed and arranged to optimize grippability for both small children and caregivers as well as promote optimum orientation of the container assembly by a small child during use.

SUMMARY OF THE INVENTION

Accordingly, it is an object of the invention to provide a spillproof container assembly that provides guidance to consumers as to the proper degree of tightening between the lid and the container body.

It is further an object of the invention to provide a spillproof container assembly that is constructed and arranged to optimize grippability for small children and caregivers, as well as promoting optimum orientation of the container assembly by a small child during use.

In order to achieve the above and other objects of the invention, a lid for a spillproof drinking assembly according to a first aspect of the invention includes an inner surface having at least one thread defined thereon; a rounded main body and a first wing protruding from a first side of the rounded main body that facilitates gripping of the lid by a user.

A lid for a child's container according to a second aspect of the invention includes a lid body; securement structure for facilitating releasable attachment of the lid body to a container body; a drinking opening defined in the lid body for permitting the passage of fluid through the lid body to a user for purposes of drinking; and an acoustic waveguide defined in the lid body for transmitting a sound to the user.

A lid for a spillproof drinking assembly according to a third aspect of the invention includes a lid body; securement structure for facilitating releasable attachment of the lid body to a container body; a drinking opening defined in the lid body for permitting the passage of fluid through the lid body to a user for purposes of drinking; and a viewing port defined in the lid body for viewing a portion of the container body in order to verify proper alignment of the lid body and the container body when the lid body is being secured to the container body.

A spillproof container assembly according to a fourth aspect of the invention includes a lid having a generally circular lid main body, a first lid wing protruding from a first side of the lid main body and a second lid wing protruding from a second, opposite side of the lid main body; and a container having a generally circular container main body, a first container wing protruding from a first side of the container main body and a second container wing protruding from a second, opposite side of the container main body, and wherein the first lid wing is substantially aligned with the first container wing, and the second lid wing is substantially aligned with the second container wing.

A spillproof container assembly according to a fifth aspect of the invention includes a container body having a first mounting thread and a visual indicator provided on an upper

surface thereof; a lid body having a second mounting thread that is adapted to engage the first mounting thread so that the lid body may be fastened to the container body by screwing, the lid body having a viewing port defined therein; and wherein the lid body and the container body are constructed and arranged so that the visual indicator is visible through the viewing port when the lid body is screwed onto the container body with a predetermined tightness.

A spillproof container assembly according to a sixth aspect of the invention includes a container body; a lid body that is constructed and arranged to the fastened to the container body by screwing, the lid body having an acoustic waveguide defined therein; and structure in communication with the acoustic waveguide for producing an audible feedback when the lid body is screwed onto the container body with a predetermined tightness.

A container for a spillproof drinking assembly according to a seventh aspect of the invention includes a bottom portion; a main body portion having an main body, the main body being substantially round as viewed in top plan and a first wing protruding from a first side of the main body in order to enhance grippability of the container for a small child.

A container for a spillproof drinking assembly according to an eighth aspect of the invention includes a bottom portion; a main body portion having an upper portion and a first wing protruding from a first side of the upper portion of the main body that has an upper platform defined therein.

These and various other advantages and features of novelty that characterize the invention are pointed out with particularity in the claims annexed hereto and forming a part hereof. However, for a better understanding of the invention, its advantages, and the objects obtained by its use, reference should be made to the drawings which form a further part hereof, and to the accompanying descriptive matter, in which there is illustrated and described a preferred embodiment of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a perspective view of a spillproof container assembly that is constructed according to a preferred embodiment of the invention;

FIG. **2** is a front elevational view of the spillproof container assembly that is shown in FIG. **1**;

FIG. **3** is a side elevational view of the spillproof container assembly that is shown in FIG. **1**;

FIG. **4** is a top plan view of the spillproof container assembly that is shown in FIG. **1**;

FIG. **5** is a cross-sectional view taken along lines **5-5** in FIG. **4**;

FIG. **6** is a cross-sectional view taken along lines **6-6** in FIG. **2**;

FIG. **7** is a cross-sectional view taken along lines **7-7** in FIG. **4**;

FIG. **8** is a fragmentary top plan view showing a portion of the spillproof container assembly that is shown in FIG. **1**;

FIG. **9** is a fragmentary cross-sectional view showing a portion of the spillproof container assembly that is shown in FIG. **1**;

FIG. **10** is another fragmentary cross-sectional view showing a portion of the spillproof container assembly that is shown FIG. **1**;

FIG. **11** is a perspective view depicting a container body that is constructed according to a preferred embodiment of the invention;

FIG. **12** is a perspective view showing a spillproof container assembly that is constructed according to a second embodiment of the invention;

FIG. **13** is a perspective view showing a spillproof container assembly that is constructed according to a third embodiment of the invention;

FIG. **14** is a perspective view showing a spillproof container assembly that is constructed according to a fourth embodiment of the invention;

FIG. **15** is a perspective view showing a spillproof container assembly that is constructed according to a fifth embodiment of the invention;

FIG. **16** is a perspective view showing a spillproof container assembly that is constructed according to a sixth embodiment of the invention;

FIG. **17** is a perspective view showing a spillproof container assembly that is constructed according to a seventh embodiment of the invention;

FIG. **18** is a perspective view showing a spillproof container assembly that is constructed according to an eighth embodiment of the invention;

FIG. **19** is a perspective view showing a spillproof container assembly that is constructed according to a ninth embodiment of the invention; and

FIG. **20** is a perspective view showing a spillproof container assembly that is constructed according to a tenth embodiment of the invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT(S)

Referring now to the drawings, wherein like reference numerals designate corresponding structure throughout the views, and referring in particular to FIG. **1**, a spillproof container assembly **10** that is constructed according to a first, preferred embodiment of the invention includes a lid body **12** that has a generally circular lid main body **14** as viewed in top plan, best seen in FIG. **4**.

Lid body **12** includes at least one lid wing that protrudes radially outwardly from a first side of the main body **14**. In the preferred embodiment, lid body **12** includes a first lid wing **16** that protrudes radially outwardly from a first side of the lid main body **14**, and a second lid wing **18** that protrudes radially outwardly from a portion of the lid main body **14**, which is preferably on a second side that is opposite the first side. The lid wings **16**, **18** are preferably substantially diametrically opposed. Alternatively, the lid wings **16**, **18** could be positioned so that they are located as if at 2:30 and 9:30 on a clock.

A lid wing by definition forms part of the sidewall of the lid body. A solid handle that extends outwardly from a lid is not to be considered a lid wing for purposes of this document.

Alternatively, the lid body could be fabricated to have just a single lid wing, or multiple lid wings that may be spaced circumferentially about the outer periphery of the lid body. For example, the lid body could have three lid wings that are spaced 120° apart.

The lid body **12** is preferably constructed and arranged to receive a flexible insert **28**, which has a makeup air valve **29** integrally formed therein. The flexible insert **28** is preferably fabricated from a flexible material such as silicone and preferably defines an upstanding drinking spout **19**, which has an opening **20** defined therein that is in communication with an interior space of the cup assembly **10** that may hold liquid such as a beverage. In the preferred embodiment, the opening in the lid body **12** for receiving the flexible insert **28** is symmetrical so that the flexible insert **28** can be inserted facing in either direction.

The spillproof drinking cup assembly **10** further includes a container body, which in the preferred embodiment is a cup body **22** having a generally circular main body **23**, as may be seen in FIG. **5**. The cup body **22** is also shown in perspective without the lid body **12** in FIG. **11**. Alternatively, the container body could be a baby bottle, bowl, snack trap or any other type of container that is constructed and arranged to receive a lid. Preferably, cup body **22** has a volumetric capacity that is less than about 30 ounces, more preferably less than about 20 ounces and most preferably less than about 12 ounces.

Cup body **22** includes at least one container wing or cup wing that protrudes radially outwardly from a first side of the cup main body **23**, which enables a consumer to grip and exert torque on the cup body **22** during tightening and untightening of the lid body **12**. In the preferred embodiment, the cup body **22** includes a first cup wing **24** that protrudes radially outwardly from a first side of the cup main body **23** and a second cup wing **26** that protrudes radially outwardly from a second, opposite side of the cup main body **23**. The respective cup wings **24**, **26** both preferably form part of the upper surface of the cup body **22**. The cup wings **24**, **26** are preferably substantially diametrically opposed, but could be positioned so that they are not diametrically opposed, such as if they were located at 2:30 and 9:30 on a clock.

For purposes of this document, a cup wing shall be considered to be integral with and form part of the interior of the sidewall of the container that contains beverage or other fluid therein. For example, an external accessory such as a solid handle shall not be considered a cup wing for purposes of this document.

Alternatively, the container body could be provided with a single container wing, or multiple container wings. By grasping the wings on the lid and the container body, a user is able to more conveniently exert relative torque between the lid and the cup body in order to tighten and untighten the lid onto the cup.

The container body could be embodied within the ambit of the invention as a container other than a cup, such as a baby bottle or a bowl.

Each of the cup wings **24**, **26** is preferably tapered so as to decrease in width as viewed in top plan as it extends away from the generally circular main body **23**. In addition, each cup wing **24**, **26** preferably has a distal surface **27** that is substantially flat. Moreover, as is best shown in FIG. **3**, each of the cup wings **24**, **26** preferably is tapered as viewed in side elevation so as to decrease in width from top to bottom.

Both the lid body **12** and the cup body **22** are preferably fabricated from a plastic material such as polypropylene, polyethylene or high-density polyethylene using a process such as injection molding.

As may best be seen in FIG. **5**, the lid body **12** is constructed and arranged to be screwed onto the cup body **22**. In order to enable this, at least one helical lid thread **62** is provided on an inner circumferential surface of the lid body **12**, which mates with at least one helical cup thread **64** that is defined on an outer circumferential surface of the circular main body **23** of the cup body **22**.

Preferably, the first lid wing **16** is substantially aligned with the first cup wing **24** and the second lid wing **18** is substantially aligned with the second cup wing **26** when the lid body **12** is screwed onto the cup body **22** to a predetermined optimum tightness and relative position. As will be described in greater detail below, the spillproof drinking cup assembly **10** provides visual, audible and tactical feedback to a user in determining when the optimum design tightness and position has been reached between the lid body **12** and the cup body **22**.

In the preferred embodiment, the first lid wing **16** has a first viewing port **38** defined therein, and the second lid wing **18** has a second viewing port **40** defined therein. Preferably, a portion of the first cup wing **24** is visible through the first viewing port **38** and a portion of the second cup wing **26** is viewable through the second viewing port **40** when the lid body **12** has been tightened onto the cup body **22** to the predetermined optimum closed position and tightness.

In the preferred embodiment, a visual indicator **72** is provided on a platform **68** located on an upper portion of the respective cup wing **24**, **26** that is viewable through the respective viewing port **38**, **40**. Preferably, the visual indicator **72** is a different color from at least a portion of the surface defining the respective viewing port **38**, **40**.

As may best be seen in FIG. **11**, the platform **68** is preferably substantially flat, and is further preferably substantially disposed within a plane that is substantially normal to a longitudinal axis of the cup body **22**. The platform **68** preferably forms part of an upper surface of the cup body **22**. Platform **68** preferably has an area that is substantially within a range of about 25 mm to about 1000 mm, more preferably substantially within a range of about 35 mm to about 600 mm and most preferably substantially within a range of about 45 mm to about 350 mm.

The first and second lid wings **16**, **18** preferably substantially correspond in size and shape, particularly in their extent of radial projection, to the first and second cup wings **24**, **26**. Preferably, the first and second lid wings **16**, **18** are substantially symmetrical to each other and substantially identical in size and in shape. Similarly, the first and second cup wings **24**, **26** are preferably substantially symmetrical to each other and substantially identical in size and shape.

Referring to FIG. **4**, it will be seen that the first lid wing **16** extends radially outwardly from the lid main body **14** by a first distance D_1, and the second lid wing **18** extends radially outwardly from the lid main body **14** by a second distance D_2, which is preferably substantially identical to the first distance D_1. As FIG. **5** shows, the lid body **12** has a maximum lateral dimension D_{MAX}, while the cup body **22** has a maximum lateral dimension D_{MAX2}.

In the preferred embodiment, a ratio D_1/D_{MAX} of the radial projection of the lid wing **16** to the maximum lateral extent of the lid body **12** is substantially within a range of about 0.03 to about 0.25, more preferably substantially within a range of about 0.04 to about 0.20 and most preferably substantially within a range of about 0.05 to about 0.16.

Each of the lid wings **16**, **18** further has a maximum width W_{MAX} as measured on its outermost surface, as is best shown FIG. **8**. Preferably, a ratio of the maximum width W_{MAX} to the maximum lateral extent D_{MAX} of the lid body **14** is substantially with a range of about 0.3 to about 0.85, more preferably substantially within a range of about 0.35 to about 0.8 and most preferably substantially within a range of about 0.4 to about 0.7.

Preferably, as is also shown in FIG. **5**, the first cup wing **24** extends radially outwardly from the cup main body **23** by a third distance D_3, while the second cup wing **26** extends radially outwardly from the cup main body **23** by a fourth distance D_4, which is preferably substantially identical to the third distance D_3. Preferably, the distances D_3, D_4 are based are at least substantially about 0.1 inch and more preferably at least substantially about 0.2 inch.

In the preferred embodiment, a ratio D_3/D_{MAX2} of the radial projection of the first cup wing **24** to the maximum lateral dimension D_{MAX2} of the cup body **22** is substantially within a range of about 0.03 to about 0.25, more preferably substantially within a range of about 0.04 to about 0.20 and most preferably substantially within a range of about 0.05 to about 0.16.

Preferably, the first distance D_1 is substantially the same as the third distance D_3, while the second distance D_2 is preferably substantially the same as the fourth distance D_4. In other words, the cup wings **24**, **26** preferably protrude radially to about the same extent as the respective lid wings **16**, **18**.

As FIG. **1** shows, indicia **30** may be provided on the lid body **12**, preferably on an outer surface of one or more of the lid wings **16**, **18**, to indicate to a user that tactile, visual and audible feedback is available to verify that the lid body **12** has been fully screwed onto the cup body **22**. In the preferred embodiment, indicia **30** is embodied as a lock icon.

Preferably, the cup body **22** is generally hourglass shaped, having a narrowed waist **32** that is provided with a plurality of gripping ribs **34** andan expanded bottom, or lower portion **36**. The cup body **20** to further preferably has a textured side panel **46**, best visible on FIG. **3**, with a plurality of gripping ribs **39**. The textured side panel **46** preferably has an hourglass shape, with an upper end **48** that merges into a lower portion of the respective cup wing **24**, **26**, a larger lower end **50** and a narrowed central portion **52**.

Structure **56** for providing audible feedback when the lid body **12** reaches a predetermined position in which it has been optimally positioned and tightened with respect to the cup body **22** is best shown in FIGS. **4** and **7-10**. In the preferred embodiment, the structure **56** for providing audible feedback includes a first portion that is defined on at least one of the lid wings **16**, **18** and a second portion that is defined on at least one of the cup wings **24**, **26**.

Most preferably, the structure **56** for providing audible feedback includes an acoustic waveguide **78** on both of the lid wings **16**, **18** that is defined as part of the respective viewing port **38**, **40**, and a flexible tab **58** that is cantilevered inwardly into the viewing port **38**, **40** from an outboard side **60** of the sidewall defining the respective viewing port **38**, **40**. By connecting the flexible tab **58** to the outboard side **60** as opposed to the inboard side, interruption of the cup threads **64** is avoided.

As FIG. **9** shows, the flexible tab **58** preferably has a horizontal leg **74** that has a first length L_T, and a vertical leg **76** that extends downwardly from the horizontal leg **74** and has a height H_S. Accordingly, the flexible tab **58** is preferably L-shaped. Height H_S is preferably substantially within a range from about 2 mm to about 10 mm, more preferably substantially within a range of about 3 mm to about 9 mm and most preferably substantially within a range of about 4 mm to about 7 mm.

The flexible tab **58** is preferably fabricated from a relatively hard plastic material such as polypropylene, ABS, polyvinyl chloride, nylon or polyethylene terephthalate. Preferably, the flexible tab **58** has a modulus of elasticity that is substantially within a range of about 0.0001 to about 25 GPa, more preferably substantially within a range about 0.0008 to about 18 GPa, and most preferably substantially within a range of about 0.00159 to about 12.1 GPa.

Additionally, flexible tab **58** preferably has a hardness that is substantially within a range of about 10 to about 150 Rockwell R, more preferably substantially within a range of about 15 to about 130 Rockwell R and most preferably substantially within a range of about 20 to about 117 Rockwell R.

The flexible tab **58** is preferably mounted so that it is in acoustic communication with the respective port **38**, **40**, and is more preferably positioned within the respective port **38**, **40**, which is also the acoustic waveguide **78**.

The structure **56** for providing audible feedback further preferably includes a snap projection for engaging and temporarily restraining the flexible tab **58** while the lid body moves with respect to the cup body **22** toward the predetermined optimum closed position. In the preferred embodiment, the snap projection is embodied as a snap ridge **66** that projects upwardly from the raised platform **68** that is located at the uppermost portion of the respective cup wing **24**, **26**. Alternatively, the snap projection could be a single or multiple bumps or posts, which could work individually or as a group to engage the flexible tab **58**.

The snap ridge **66** preferably has a height H_R that is substantially within a range of about 0.1 mm to about 1.3 mm, more preferably substantially within a range of about 0.3 mm to about 1.2 mm and most preferably substantially within a range of about 0.5 mm to about 0.9 mm.

As the lid body **12** approaches the optimal predetermined position and tightness with respect to the cup body **22** as it is being screwed onto the cup body **22**, the lowermost portion of the vertical leg **76** of the flexible tab **58** will travel across the upper surface of the platform **68** and engage the snap ridge **66**. This causes the flexible tab **58** to flexibly deflect like a leaf spring as the lid body **12** continues to move with respect to the cup body **22**, until the lowermost surface of the vertical leg **76** cams itself over the upper surface of the snap ridge **66**. Preferably, the snap ridge **66** has a substantially symmetrical profile when viewed in transverse cross-section. When the upper surface of the snap ridge **66** can no longer restrain the flexible tab **58**, the energy that is stored as a result of the elastic deflection of the flexible tab **58** will suddenly be released, and the flexible tab **58** will resonate within the acoustic waveguide **78**. This is heard by a consumer as a distinctive clicking sound.

The clicking sound is then funneled upwardly and amplified by the acoustic waveguide **78**, which is megaphone shaped, having an upper portion **42** that is wider than the lower portion **44**. The clicking sound is accordingly concentrated in a given direction and the coupling of its energy to the air is optimized by the acoustic waveguide **78**. The audible feedback that is provided to the consumer when the lid body **12** has reached the optimal predetermined position with respect to the cup body **22** is thus maximized.

Preferably, the flexible tab **58** is constructed and arranged to be laterally deflected during its engagement with the snap ridge by a distance D_{LE} that is preferably substantially within a range of about 1 mm to about 5.5 mm, more preferably substantially within a range of about 2 mm to about 4.75 mm and most preferably substantially within a range of about 3 mm to about 4 mm.

Preferably, the structure **56** for providing audible feedback in the first lid wing **16** is synchronized with respect to that provided in the second lid wing **18** so that the clicking sounds are simultaneous. Accordingly, the snap ridge **66** on the first cup wing **24** is preferably substantially diametrically opposed to the snap ridge **66** on the second cup wing **26**, and the flexible tab **58** on the first lid wing **16** is substantially diametrically opposed to the flexible tab **58** on the second lid wing **18**. Alternatively, the respective structures **56** could be slightly staggered or offset from a precise diametric opposition so that the clicking sounds are sequential.

Additional embodiments of the invention are shown in FIGS. **12-20**. In each of these embodiments, the function and purpose of the lid wings, cup wings and the visual, tactile and acoustic feedback systems is substantially the same as described above with respect to the preferred embodiment, and differ from the preferred embodiment only in terms of aesthetic form, the presence of additional handles and different types of drinking mechanisms.

FIG. **12** depicts a spillproof cup assembly **90** according to a second embodiment of the invention, in which a pair of handles **92**, **94** are provided to enhance grippability.

FIG. **13** depicts a spillproof cup assembly **96** according to a third embodiment of the invention, having a cup body **98**, a lid body **100** and a straw deployment mechanism **102** for opening and closing a drinking straw **104**.

FIG. **14** depicts a spillproof cup assembly **106** according to a fourth embodiment of the invention, having a cup body **108**, a lid body **110** and a drinking spout **112**.

FIG. **15** depicts a spillproof cup assembly **114** according to a fifth embodiment of the invention, having a cup body **116**, a lid body **118**, and an integral drinking spout **120**.

FIG. **16** depicts a spillproof cup assembly **122** according to a sixth embodiment of the invention, having a cup body **124**, and a lid body **126** having an opening on **128** defined therein for receiving a drinking straw.

FIG. **17** depicts a spillproof cup assembly **130** according to a seventh embodiment of the invention, having a cup body **134**, a lid body **136** having integrated handles **132** and an integrated drinking spout **138**.

FIG. **18** depicts a spillproof cup assembly **140** according to an eighth embodiment of the invention, having a cup body **142**, and a lid body **144** having a plurality of drinking holes **146** defined therein.

FIG. **19** depicts a spillproof cup assembly **150** according to a ninth embodiment of the invention, having an insulated cup body **152**, a lid body **154** and an integrated drinking spout **156**.

FIG. **20** depicts a spillproof cup assembly **160** according to a tenth embodiment of the invention, having an insulated cup body **162**, a lid body **164** and a straw deployment mechanism **166** for selectively deploying a drinking straw **168**.

It is to be understood, however, that even though numerous characteristics and advantages of the present invention have been set forth in the foregoing description, together with details of the structure and function of the invention, the

disclosure is illustrative only, and changes may be made in detail, especially in matters of shape, size and arrangement of parts within the principles of the invention to the full extent indicated by the broad general meaning of the terms in which the appended claims are expressed.

What is claimed is:

1. A container for a spillproof drinking assembly, comprising:

a container body having a first upper open end and a lower closed end;

a neck extending cylindrically outward and away from the first upper end of the container body, the neck including at least one threaded fastener on an outer surface of the neck to receive a cap,

wherein an outer surface of an upper end of the container body extends below the neck radially outward to define a shoulder;

a platform is disposed on the shoulder; and

a snap projection is disposed on the platform, wherein the snap projection extends upward, away from the platform to a predetermined height.

2. A container for a spillproof drinking assembly according to claim **1**, wherein the platform is disposed on top of an upper surface of the shoulder.

3. A container for a spillproof drinking assembly according to claim **2**, wherein the platform is substantially flat.

4. A container for a spillproof drinking assembly according to claim **1**, wherein the snap projection extends radial from a first end adjacent to an outer end of the shoulder.

5. A container for a spillproof drinking assembly according to claim **4**, wherein the snap projection extends radially inward to a second end adjacent to an inner end of the shoulder adjacent to the neck.

6. A container for a spillproof drinking assembly according to claim **5**, wherein a gap is provided between the second end of the snap projection and the neck.

7. A container for a spillproof drinking assembly according to claim **1**, wherein the snap projection comprises a snap ridge.

* * * * *

United States Court of Appeals
for the Federal Circuit
Munchkin, Inc. v. Luv N' Care, Ltd., 2017-1179

CERTIFICATE OF SERVICE

I, Robyn Cocho, being duly sworn according to law and being over the age of 18, upon my oath depose and say that:

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On **March 20, 2017,** counsel has authorized me to electronically file the foregoing **Brief for Appellant** with the Clerk of Court using the CM/ECF System, which will serve via e-mail notice of such filing to all counsel registered as CM/ECF users, including the following principal counsel for the other parties:

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Paper copies will also be mailed to the above principal counsel at the time paper copies are sent to the Court.

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